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QUESTRON II • LIFE FORCE • ROAD WARS

COMPUTER PLAY

FREE!
GAME OFFER
PAGE 48

BEST OF
THE YEAR
BALLOTING

DECEMBER, 1988 ISSN 14042 \$2.95 USA \$3.95 CAN

THE COMPLETE GUIDE TO COMPUTER GAMES

TAKE OFF
CARRIER WITH
COMMAND



NBA EXCITEMENT: JORDAN vs BIRD
AWESOME ARCADE ACTION FROM ARCADIA
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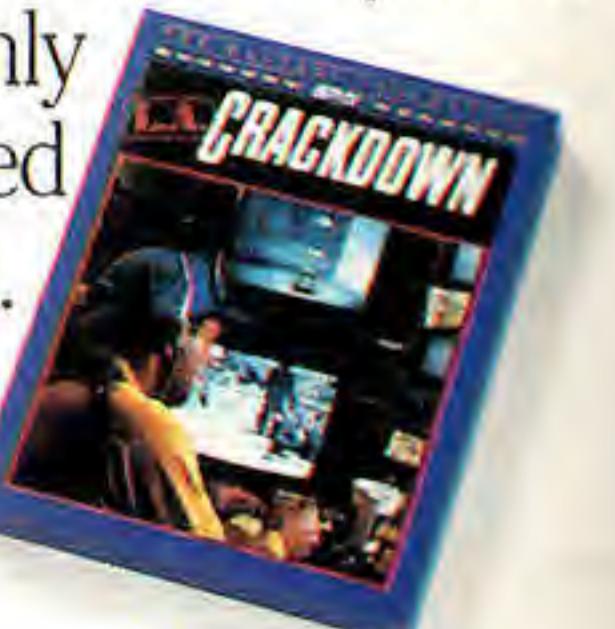
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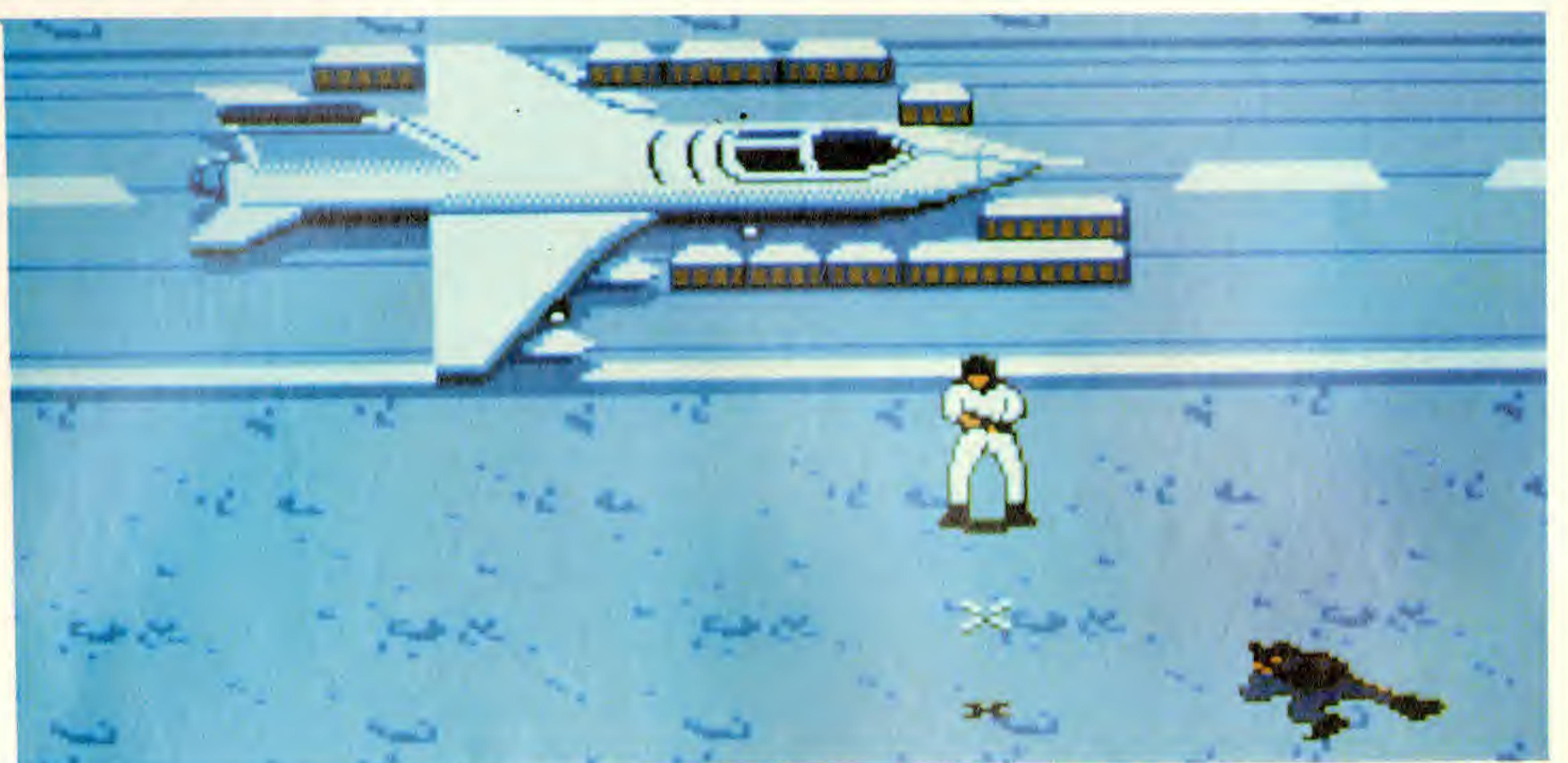
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Contents



Airborne Ranger from Microprose. See Page 62.

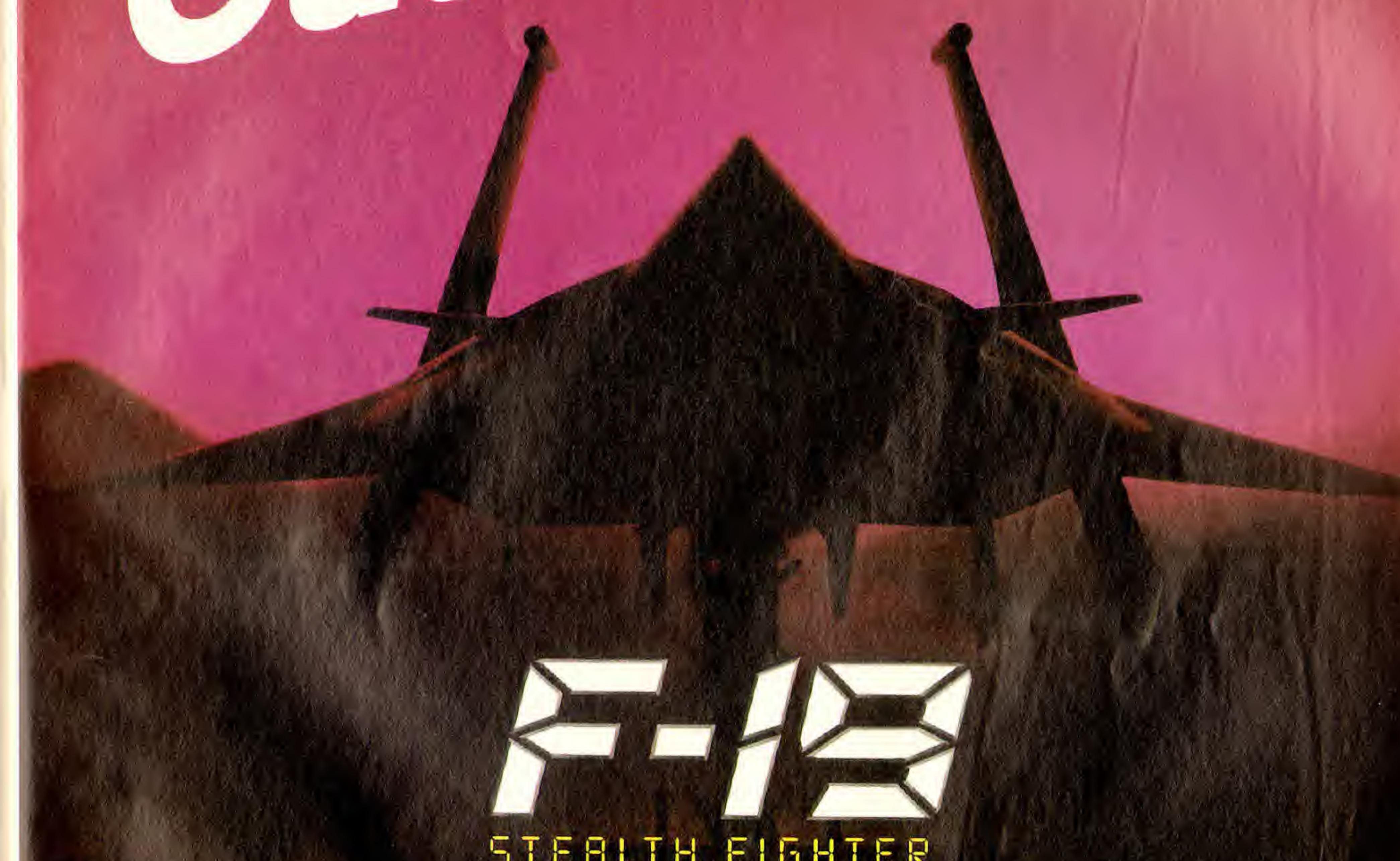
DEPARTMENTS

EDITOR'S PAGE	4 The truth about ratings.
LETTERS & HINTS	5 Feedback and tips from readers.
COMPANY ADDRESSES	52 Software game manufacturers.
SCORECARD	53 Ratings from past issues.
BEST OF '88 BALLOT	60 Vote for the best games.
COMMING ATTRACTIONS	64 Next issue's features.
ADVERTISER INDEX	64 Reader Service information.
COLUMNS	
INDUSTRY NEWS	6 What's new and exciting.
OTHER PORTS	58 Mac and Atari ST news.
SNAPSHOTS	62 Brief looks at new releases.
CHANNEL THREE	63 Check out LIFE FORCE.
REVIEWS	
FLYING HIGH	10 TOP GUN charts a tough course.
ONE ON ONE	12 Jordan and Bird square off.
ARCADE STRATEGY	16 Take charge in CARRIER COMMAND.
MARINE WARFARE	21 Fight it out in LEATHERNECK.
STREET FIGHT	22 Explosive action in ROAD WARS.
THREE-WAY FUN	24 AWESOME ARCADE ACTION PACK.
MOVIE SPINOFF	26 PLATOON takes you to Viet Nam.
AIR HOCKEY ACTION	28 Into the future with SHUFFLEPUCK CAFE.
GAME HARDEWARE	29 A look at joysticks, color monitors and boards.
A NASA PRIMER	44 SPACE M*A*X is awesome.
GREAT ROLE-PLAYING	45 QUESTRON comes back better.
ADDICTING ACTION	51 ZOOM! scores on many levels.

ON THE COVER

CARRIER COMMAND from Rainbird was a big hit in Europe and is fast becoming one here in the U.S. thanks to great graphics, complex strategy and tremendous arcade action. See page 16.

out of sight!



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Editorial Office

Editor's Page

Rating the Ratings

We've received a number of letters (see page 9) and calls in regard to some of the ratings that appeared in our October sports issue so we decided to shed a little more light on the ratings situation.

Associate Editor Rusel DeMaria gives us his views on our rating system in the following editorial. Anyone with an opinion on ratings is certainly welcome to write and give us their views as well. The way we see it, the more the merrier, so keep those letters coming in.

And please remember to vote (page 61) for your choices for the best games of the year and become eligible to win one of the 35 prizes being given away.

Back in the September issue of COMPUTER PLAY, I was privileged to review John Elway's Quarterback, an entertaining football simulation. Though I liked the program well enough, I also found some reasons to criticize it -- after all, that's my job as a reviewer. But I thought it a fine program.

However, as a matter of policy, I was expected to rate the program according to COMPUTER PLAY's rating system which takes into account the packaging, documentation, graphics quality, and playability of the game. This weighted scale then helps us produce an overall rating we call the CP Rating.

I've never liked rating systems, and Elway's Quarterback fell victim to one of the reasons why. To me, ratings are too arbitrary. Let's face it, we're trying to quantify something that is inherently subjective. Sure, it works; it helps you see quickly how good (or bad) a program is, but it also comes with its share of pitfalls.

You see, ratings are subject to some of the same maladies that most of us suffer. Ratings can have a bad day. Some of us see things through rosier glasses than others. And sometimes a game is strong in the areas where it counts the most, but just average in areas where it makes little difference.

In the case of Elway's Quarterback, I was just judging on a somewhat stiffer yardstick than the reviewers of the other football games in that issue, and consequently, Quarterback received a lower CP rating than some of its peers. It should have scored as high or higher than the others.

Ratings can vary also with factors that we

all experience. I might rate a game slightly differently at the end of the day than at the beginning. If I get my tax bill that day, it might have an even greater effect on my ratings. For all I know, biorhythms might effect ratings. The point is, no one is going to give exactly the same rating to a product day in and day out. It's too subjective.

Also, you have to rate programs against a common denominator. So if a program has absolutely adequate documentation and packaging, it is a fine package, but the ratings cannot be the same for those categories as it would be for a program that had superior packaging and documentation. Now could it? However, the game with everything else being adequate could be a superior game to play. Low scores in the other categories could drive down its CP rating, though we do weigh the playability above all else.

Still, I hope you get my point. I hate to see people rely too heavily on ratings. I've been doing them for years in various magazines, and even in private studies. They are good benchmarks for approximating opinions. Just don't expect them to be accurate to the finest detail. If two ratings are at all close, don't assume that you should necessarily reject the one with the lower score.

There's no wrong or right here. You as a reader, are entitled to use all the tools you can to decide where and how to spend your money, and we hope the ratings systems will help. However, I, for one, ask you to pay attention to what is actually said in the review more than what the numbers reflect. I may sometimes be wrong in a review -- it happens rarely, I think -- but at least I spell out in some detail why I say something, if I like it, I tell you why. If I don't like it, I tell you why not.

As a final word, witness the ratings of Olympic events like gymnastics and diving. In one, there are perfect 10's given out in almost every event, even though it becomes meaningless when all the competitors get 10's and there is no room for discrimination. On the other hand, divers rarely get close to a ten, and a really good dive still may only score in the high 8's up to 9.5. And even there, where everyone watches the same event, the scores often vary a lot. As I have said many times, ratings don't mean much, but we all love them.

So enjoy the ratings we provide, but please don't take them too seriously.

Letters

Send letters to the editor to: Computer Play, 3321 W. Dempster, Skokie, IL 60076

Some Criticism—

It is with very mixed feelings that I examined the October issue of Computer Play. Of course, I was gratified to see our John Elway's Quarterback featured on your front cover, and the lead review in you special sports section. And I thought the comments by Rusel DeMaria were very fair. For the most part, he seemed to like the game (although he thought the manual was a little weak, and was disappointed that Quarterback was not installable on a hard disk).

However, Mr. DeMaria also complained that the game is not copyable, which is untrue -- it is 100% copyable, using the standard disk copy command. Another error was evident in the pricing. You listed Quarterback at \$44.95, when in fact the IBM version which was reviewed retails for \$29.95 for the 5-1/4" or the 3-1/2" versions, or \$34.95 for the combined version (available from a few selected retailers). Neither are any of the other machine versions (Commodore 64, Apple II, or Apple IIGS) priced at \$44.95.

Actually, my principle concern was not in mistakes made, or in the content of the review. I would NEVER question the right of a journalist to publish his or her opinion of a product, however negative (which this was not). My "beef" is with you, the Editor, in your presentation of the reviews of six football games. (Some of the comments may also apply to the other sport reviews, but I have not concerned myself with those here).

The reviews were written by four different people, with obviously different standards. That their standards varied was apparent by the obvious enthusiasm of a couple of the reviewers for ANY football game that had graphics. They each gave their products a 9 for graphics.

Yet Quarterback's graphics were clearly better (according to the screen shots with the reviews) than at least one of these, and although Quarterback was not a clear winner against the other when viewing a static screen, I have seen the other game animate, if you can call it that! Yet this other game got a rating of 9 for graphics and John Elway's Quarterback, a direct translation of a popular Coin-op Arcade game with skillfully animated graphics, scored only an 8 for Graphics?

To use another example of this disparity of standards that is NOT about my own product, NFL Challenge scored an 8 for Documentation (a higher rating that the reviewer gave the game for Playability). I will not argue the Playability rating, however it is clear that the reviewer didn't attach much importance to Documentation. Most people I know regard NFL Challenge's Documentation as top-of-the-line.

Because of the presentation (with similar-looking ratings boxes at the end of each review), a reader looking at this issue might be pardoned for assuming that all of these games were evaluated according to identical criteria. And that according to these criteria, one game was the best, and one game (not Quarterback, I might point out) was inferior. In fact, they were all evaluated by the varying criteria of the individuals, so that no such conclusions should be drawn. The presentation, quite simply, is deceptive.

On another issue, I was frankly surprised find you reviewing a non-shipping product, TV Sports Football. When you were urging me to send you Quarterback A.S.A.P. for review, you stated that you would NOT be reviewing any products that were not shipping by the review deadline in early August (it was a friendly threat to encourage me to do everything possible to get it shipping and send you the first copy off the line). I was puzzled then to see in your October issue, on newsstands in September, a review of this product which was not yet released (even for the Amiga, which according to the review was supposed to be the first shipping version).

While I understand that some magazines "review" products that are far from completed, simply on the strength of what they are told from a well-known publisher, I understood you to say that you were NOT going to do this. I am disappointed, not by the fact that you published a review of Vaporware, which is unfor-

tunately not an uncommon practice in this industry, but that you did so after specifically stating that you would not.

If I'm being too critical, I apologize. Possibly it is because I know that just because you and your colleagues have only recently given birth to COMPUTER PLAY does not mean that you are lacking in experience. You have been in business for YEARS. Frankly, you are too good to be making mistakes like this. I have high hopes for COMPUTER PLAY's future as an important voice in the electronic games industry, and I want it to be as good as I know it can be.

Annette Childs
Vice President of Marketing
Mastertronic International

Ms. Childs has made some interesting points which are for the most part true. We are constantly trying to upgrade the level of our reviews and their consistency and we welcome any suggestions which would help us to achieve that.

New Subscriber—

I know you are a new magazine but I think you're great. Since this magazine came out it changed my whole outlook on computers. I am subscribing to COMPUTER PLAY this week, after buying the August issue. I bought THE THREE STOOGES game because of the cover story you did on it.

Thank you for keeping me up to date on computer games. Good Luck!!!
Jimmy Riches
Farmingdale, NY

Bard's Tale Tips—

I have just read your first issue, and I am almost literally blown off my feet! Your magazine is probably the best I've ever come across for computer games! Well, after reading all the fabulous reviews, I saw the WRITERS WANTED sign. I am a Commodore 64 user and have some tips for THE BARD'S TALE PART II "The Destiny Knight".

1. You should build new characters. Don't import them from other games. They will do good if you make them anew.

2. When you are ready to get going, go around town and kill monsters until you are at least level 4. This act will be like a quick start for your party. Kick in lots of doors!

3. Once you find you are strong enough for the starter dungeon, enter it! Map out EVERY INCH of the lair. Once you get to level 2, immediately go west. There are many tough monsters in here and you can find LOTS of magic items! If you go 11 squares west you will end up in a room that says, MANGAR WAS HERE. Get out as SOON as possible! If you don't - your party will slowly die!

4. This is the order in which you should have your party. (a good example)

Paladin (They make very bold leaders)
Monk (They are the VERY best fighters after Level 8. They also require no weapons or armor.)

Fighter (Preferably a dwarf. Fighters are all-around good weapon wielders, they can use many magical ones). Rogue (They aren't that great of fighters! Put them in the 2nd row and let the throw a boomerang or shoot arrows. They are useful in opening chests, believe me!) Conjuror and Magician (They become the most powerful characters in the game! Be sure to let them master their own spell level. Magicians should learn REST and DEST. They're very nice.)

That is all. Thank you for your interest in your readers! I have only one complaint. Why are you so crazy about Macintosh stuff? I and a lot of other people own C64's. Don't leave us out. I also own a NINTENDO. Thanks!

Josh Hardina

No Nintendo—

I say ixnay the olumney on intendoNay!!! Ay! Great mag, I've been reading it since Issue No. 1. Jose Alexander Chicago, IL

Hints for Ultima IV

Items you've been lookin' for:
SKULL-Latitude PF, Longitude MF (only when it's dark)

BELL-Latitude NA, Longitude LA
BOOK-Library-Castle Lycaum (look under V)

CANDLE-Village Cove (left of Ankh there's a secret door)

WHEEL-Lost Hope Bay (south of Britannia)

Three syllables for the word:

1-COR 2-AMO 3-VER
White Stone-serpents spine (north of Britannia castle), (must have balloon)

Night Shade-1 space north of the shrine of sacrifice, (only when it's dark)

Mandrake Root-Bloody plains (poison area), (only when it's dark)

Gary Seaman Wallkikk, NY

Foreign Reader—

I have a lot to say, so in order to maximize efficiency in this letter, I will keep all sections brief and give all sections subject headings.

SUBJECT: The premiere issue of Computer Play Magazine.

Great! Finally, a magazine that covers the software with both informative and well-written reviews. This is something I've been looking for for a long time.

I would definitely like to thank you for publishing a list of Game Company Addresses. It has already been helpful in allowing me to contact Koei Corp.

SUBJECT: Hints for Might & Magic (New World Computing, Inc.)

1) Find the brother's Zam (Portsmith 12,2) and Zom (Algary 1,1) and get the chest at the coordinates they give you.

2) Morango the Mystic, reader of resistance, is in Algary (5,14).

3) See the gypsy outside Sorpigal at 9,11 in order to cross the wooden bridge in the ocean.

4) Climb to Blithes Peak and learn some interesting geography.

5) Trade with the Hermit in Sector C-3 2,10 and then search the coast beyond where pirates have been seen (see #4).

6) Seek and slay the four beast depicted on the map and then visit them spin the wheel on Luck Island.

7) Food problems? Trade with the Nomads in Sector D-1 10,13.

8) Seek a prisoner in each of the six castles (find Ranalou in the Korin Bluffs for easy access to the castles) and act according to your alignment. Then sit on the scales of judgement near Dusk.

9) Need a merchant pass? Search the wagons in Sector C-1.

10) Lord Kilburn is in Sector C-3 6,14 and he needs a few good men.

11) Help that which is ALIEN in the desert.

12) Need experience? Fight the wyverns in the Wyvern Peaks.

13) Increase your Personality in Sector D-2 10,12.

14) Increase your Accuracy 10' under Dusk at 15,15.

15) Increase your Speed 10' under Dusk at 14,5.

16) Increase your Luck in Dragadune at 1,1.

17) Deactivate the fields under Erlquin with the code: YICU2ME3.

18) Visiting the Fabulous Fountain of Dragadune (13,15 on first level) is a valuable EXPERIENCE.

Industry News & Views

By Rusel DeMaria

This month, I'm happy to report, the computer entertainment business is doing quite well. Everyone seems to be happy with sales and with their directions. Several companies are trying to increase their levels of technology or are hiring more professional personnel to augment their titles. Other companies are using celebrities to add appeal to their programs. In general, there seems to be a mood of confidence and high expectations.

Some indicators of the prosperity -Sierra has announced that **King's Quest IV** has gone SPA Gold (over 100,000 copies sold) in the period between its initial release on 9/26 and 10/6 - a matter of weeks! They are also increasing the technology of their products. All games, beginning with **KQIV**, have double the graphic resolution of the ones that preceded them (from 180 x 200 pixels to 360 by 200). Also, Sierra has announced that it will support three different music card standards - the Roland MT32, the Ad Lib card, and the IBM music card. To make the use of these cards worthwhile, Sierra is using professional composers like William Goldstein (who wrote the score for **Fame**, and who writes for Touchstone Pictures), as well as Supertramp drummer Bob Siedenberg. As if that weren't enough, Sierra went public last October. New titles from Sierra include **Leisure Suit Larry Goes Looking for Love in Several Wrong Places**, and **Police Quest II** (which should be hitting the stores about now). On another note, Sierra tells us that last year during the Christmas season, their hint line switchboards were so busy that they tied up phone lines 200 miles away. Therefore, they are beefing up their hint line hours. From November to March, they will have at least seven operators on duty for the additional hours from 5pm to 9pm (west coast time).

Another indicator of the growing popularity of computer entertainment is the resurgence of hand-held games. Gregory Fischbach, president of Acclaim, tells me that hand-held games are interesting from both the retail and the consumer standpoints. They are strong in Europe and Japan, and on the rise here. Acclaim will introduce two of its games -**Rambo** and **Air Wolf** - in hand held formats. Fischbach also hinted that in the second wave of hand-held games, we could expect to see larger internal memories, and therefore more sophisticated games. I asked him about the possibility of color LCD games, but he thought they would be a while coming because the costs would be prohibitive. Acclaim is also coming out with an **Othello** game for Nintendo, and the first Infrared (wireless) Remote Controller, a pad similar to Nintendo's that retails for \$39.95. This infrared device will work anywhere in a room from up to 30 feet away.

Atari is offering a rebate for XE game system (the system that can be upgraded to a Personal computer with the addition of a drive). The \$50 rebate is a substantial savings. Atari has also announced that its founder and original visionary, Nola Bushnell, will be producing games for them.

Konami is also coming out with handheld versions of some of its games. Titles we know about include **Double Dribble**, **Teenage Mutant Ninja Turtles**, and **Contra**, with several more as yet unannounced. In their Ultra line, Konami is

reintroducing two older titles, **Q*bert** and **Gyruss**.

People at Origin Systems have been crowing lately. That's because, at the Computer Game Developers Conference in September -- a real heavyweight gathering of the creme de la creme of game programmers and developers organized by Chirs Crawford and Stephen Friedman --Origin walked away with the award for Best Software Publisher of the Year. Origin has released **Ultima V: 2400 AD**, and **Autoduel**, this year, followed by their newest title, **Times of Lore** which features a score by a well-known English composer and professionally rendered graphics. **Times of Lore** is described as a fantasy/role playing/arcade action game somewhat less ambitious than the Ultima series. It should be out by the time you read this on the C64 and Apple II with PC and Atari ST versions to follow this month. Also coming -- sci fi **Space Rogue** featuring a 3D space flight simulation. **Space Rogue** is described as role playing in space and will be available first on the Apple II and C64. Also coming are conversions of **Ultima IV**, **Autoduel**, and **Moebius** for the Mac.

Nintendo -- Nintendo's big news, obviously is the release of **Super Mario Bros.** and **Legend of Link**, which should be out by the time you read this. They are also shipping a new peripheral package that includes their PowerPad accessory. This physical fitness device comes with several games -- **World Class Trackmeet**, **Dance Aerobics**, and **Super Team Games**. We'll tell you more about it as soon as we have one. The PowerPad will be bundled in with specific Nintendo sets, and will not be sold separately (at least not for now). The set will include the standard Nintendo equipment, including the light gun, plus the PowerPad and games for it. The retail price of this set will be \$149.95. **Donkey Kong** classics (already out), a collection of older games has been shipping for some time.

Following their success with the Soviet import, **Tetris**, Spectrum Holobyte is on the trail of another Glasnost game. However, this one is still top secret as we go to press. They will tell us that **Falcon** will be available on the C64 and **Gato** is coming on the Amiga, and a IIGS version of **PT 109** is on the way.

PCAI should have released their Mac game **Road Racer** by now. Also, they want you to know that their top-rated golf simulation, formerly referred to as **McGolf 3.0** is now called **McGolf Classic**.

The very popular **McGolf** program which carries a slightly lower price tag is still shipping.

Atari is offering a rebate for XE game system (the system that can be upgraded to a Personal computer with the addition of a drive). The \$50 rebate is a substantial savings. Atari has also announced that its founder and original visionary, Nola Bushnell, will be producing games for them.

Mastertronic -- Mastertronic was putting the final touches on **War in Middle Earth** when I spoke with them. This adventure game is based on the J.R.R. Tolkien trilogy of the Lord of the Rings.

It features Frodo, Merrie, Pippin, and the other familiar characters from the classic books.

War in the Middle Earth will feature a three level map -- an overall bird's eye view which divides the entire map into 36 screens, and a player view. You have to help Frodo and his allies take the ring and throw it down the volcano in evil Mordor to save Middle Earth. However, **War in Middle Earth** does not follow the book so closely that you can't choose your own path. There are an infinite variety of ways to play the game. Look also for computer versions of **Double Dragon** (being distributed by Electronic Arts), and **Barbarian**.

MicroIllusions is bringing out **Fairy Tale Adventure** and **Firepower** for C64, PC, and Mac. **Romantic Encounters**, a text adventure for the Mac, and several Hanna-Barbera titles, including **Scooby Doo**, **Jetsons**, **Flintstones**, and **Johnny Quest** for the various formats. They also released **Sky Travel** for the Apple II, C64 and Mac. **Sky Travel** is a complete guide to the stars, and worth getting if you have any interest in astronomy.

CM Products has announced their GameCard III Plus-MCA for the MicroChannel bus of the IBM PS/2 series of computers. As far as we know, this is the only game adapter available for the MicroChannel bus. CH has also come out with a low cost joystick, the Mach I. I've used this stick for the past few weeks, and it works perfectly well. The Mach I Plus has a button on the stick. The Mach I sells for \$28.95, and the Mach I Plus for \$34.95.

Mindscape has released its Sega games for computer, **Out Run**, **Space Harrier**, and **Alien Syndrome** are all shipping on Atari ST, Amiga, C64. **Shadowgate**, **Uninvited**, and **Deja Vu** are now available for the IIGS, and a new title is **Road Raider** by Chris Gray (author of **Infiltrator**). In **Road Raider**, you play a bounty hunter chasing Dr. A. Noid who has an evil plot to introduce an addictive food that causes lethargy. There are three levels of difficulty in this action game, including a demolition derby in the third level. **Road Raider** will be available on Atari ST, Amiga and C64. The Mindscape Freebie promotion is good until January 31st. If you purchase a Mindscape game with the Freebie sticker on it, you can send in for a list of titles that Mindscape will ship you for free.

Masterplay is shipping its first product, **Star Sega: One (Beyond the Boundary)**, an imaginative and unusual game which features a playing board and several booklets of text to detail the story. The game play is controlled by the computer and can include up to six players at a time. **Star Sega: One** was written by Andrew Greenberg (of Wizardry fame) and Mike Massimilla. It represents a new idea in computer gaming.

PDI has brought us the **Great Western Shootout** (which was first demoed at Applefest). This game for the IIGS works by mouse. You move a crosshair around screen and seek out bad guys in caves, towns, saloons, etc. But don't shoot the Good guys! PDI is also releasing a

commercial version of the popular shareware title, **NetTrek**. The commercial version will feature some improvements in game play and smoothness of operation. **NetTrek** is a game that can be played by up to six competitors over the LocalTalk cabling of a Macintosh network. New also with the commercial version will be a computer opponent -- in case everyone is too busy working to play when you're ready. PDI is also releasing **Strategic Conquest** for the Mac.

Koei should have **Genghis Kahn** on the market by now, and they plan to release 3.5 inch versions of all other products. They are also looking at European distribution over the next few months. A Koei spokesman expressed the company's appreciation of the great acceptance they have received in America considering the fact that their games deal with a very different culture. The also told me to expect to see a Nintendo version of **Nobunaga's Ambition** in April.

Given chip shortages, Vic Tokai has bumped two games from this year, but they may introduce 7 new games next year. They are still deciding among them. Choices include **Terracresta**, **Chesterfield**, **Kid Cool**, and **Aeginas Prophecy**. An upcoming game, **Clash at Demonhead**, should prove to be a hot title. This adventure game includes a complex plot and fast action. Also watch for **Golgo 13 Part 2**.

Broderbund is releasing **Carmen USA** for Mac, **Carmen World** for GS, and they are planning to put out all Carmens on all popular machines. Next year they will release **Jam Session** on the IIGS. Two recent releases, **Operation: Clean Streets** and **Space Racer**, offer 3-D animations. **Clean Streets** let you make your day as **Cleanup Harry**, an undercover cop who leads the fight against illegal drugs in the streets. In **Space Racer**, you engage in a highly dangerous race through outer space. Both games feature animated 3-D graphics.

Taito's news includes the October release of **Arkanoid** for IBM, IIGS, Apple II, and Atari ST, a new game, **Bubble Bauble**, which features two dinosaurs that blow bubbles at evil beasts (for Amiga and ST), **Operation Wolf** on C64, Amiga, and ST, **Renegades** for Amiga, ST, C64, IBM, IIGS and Apple II, **Sky Shark** for the C64.

Sir Tech should have released **Wizardry V**, **Heart of the Maelstrom**, and **Minds of Kintar**. They are also sponsoring a national promotion which lets dealers purchase the first three Wizardry titles and get the fourth free.

360 Pacific has introduced **Thud Ridge**, a Vietnam F-105 Thunderchief fighter simulation which includes ten historical missions for the IBM, Atari ST, and Amiga.

LucasFilm's long anticipated WWII Naval air combat simulator **Battlehawks '42** is out. This game features digitally rendered graphics that are of very high quality as well as 4 key historical battles and more than 30 missions. Also **Zak McCracken** for Amiga.

Accolade's **Gran Prix Circuit** features a choice of cars from one of three teams

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You better stop reading now or you're liable to overheat from sheer anticipation.

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Circle Reader Service Number 60.

Air Hockey of the Future

By Margot Comstock

Once upon a time, in the hectic land of pioneer computer magazining (now defunct), there lived a brilliant and cantankerous art director who spurned computers. Not only had this suprisingly young fellow no time for computers, but in a era when nearly all innovation and excitement on these revolutionary machines came in the form of computer games, he had nothing but contempt for sport and game altogether.

Around the clock worked the young staff, and so did this artist, despite the pings and jingles of Super Invader, Crossfire, Space Eggs and Lode Runner tumbling in from the editorial department. Stoically, he bought himself the largest stero speakers in the world and cranked up Mahler and The Photographer and even Einstein on the Beach.

Spacing Out

Despite it all, the magazine empire prospered and grew, and eventually it converted an abandoned factory to make room for itself. The art director found himself with a wonderful, huge space for his drawing tables and light tables and paste up tables and even for his dark room. He also found himself with a growing staff eager for some respite during the long deadline hours, which had not decreased with growth.

So, on a whim that shall never be understood, the art director purchased another table which he puffedly, sweatingly placed in the center of the art cave. Red and white and blue, half a ton of battered but solid high techy metal, the table glittered in the bits of light from the small, high old-factory windows. Staff from all departments gathered around. What was it? Could it be...no, not from this all-work taksmaster. Yet...

All eyes upon him, the art director pulled out two shuiflers and a puck. Sternly, sharply, almost malevolently, he panned his audience.

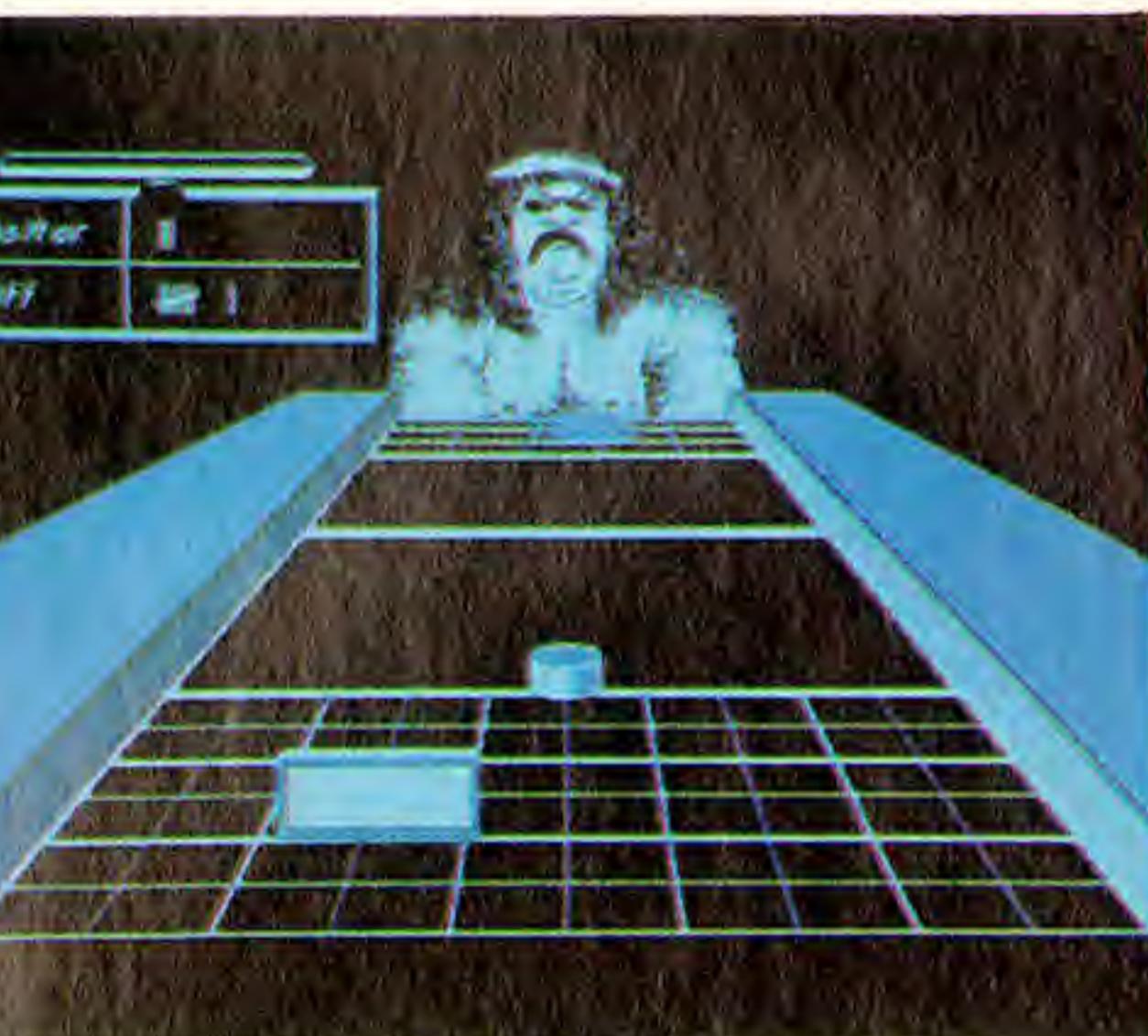
"Who's first?" he commanded.

Alone at the Top

He could not be beaten. His addiction grew and the magazine empire faded, and drowning the moans from management row, the screech of metal on metal, the shoosh of air, the thunk of puck in goal resounded from the art cave by day and night, and, at deadline, through the wee hours of the morning.

Through it all, despite Apple's progression the Macintosh, that man still spurned computers. Disaster fell around him, bills went unpaid, staffs diminished; still his lust for air hockey remained insatiable.

At last the empire fell, the staff was gone and, standing alone with no one left to beat, the brilliant, cantankerous art director watched as uncaring movers strained the shiny table away.



High Tech Solace

Today, his story need not be such a tragic one. Today, thanks to Christopher Gross, Gene Portwood and Lauren Elliot, this miserable figure could have bolstered his spirit and fed his addiction at the **Shufflepuck Cafe**.

Not only does **Shufflepuck** Cafe offer air hockey you can carry in your pocket, but its denizens include some of the most challenging air hockey players on the planet. Besides DC3-

ALSO, the robot bartender who'll let you program him to practice what you need most, and the good sportsmanship of the Woody Allen-like novice Skip Feeney, there's a variety of personalities and skills in the likes of Vinnie the Dweeb, Lexan Smythe-Worthington, Neural Ttoile, and the remarkable Princess Bejin.

I totally dislike quickie evaluations but here goes, under protest.

Name: **SHUFFLEPUCK CAFE**
Distributor: Mediagenic
Designers: Gary Sheinwald,

Chris Humphries
Ages: 12 and above

Players: One
Price: \$44.95

Requirements: None

Players: One at a time

Price: \$39.95

Ability Level: Intermediate

Packaging: Good (8)

Documentation: Good (7)

Graphics/Text: Very Good (9)

Playability: Very Good (9.6)

CP Rating: 8.90

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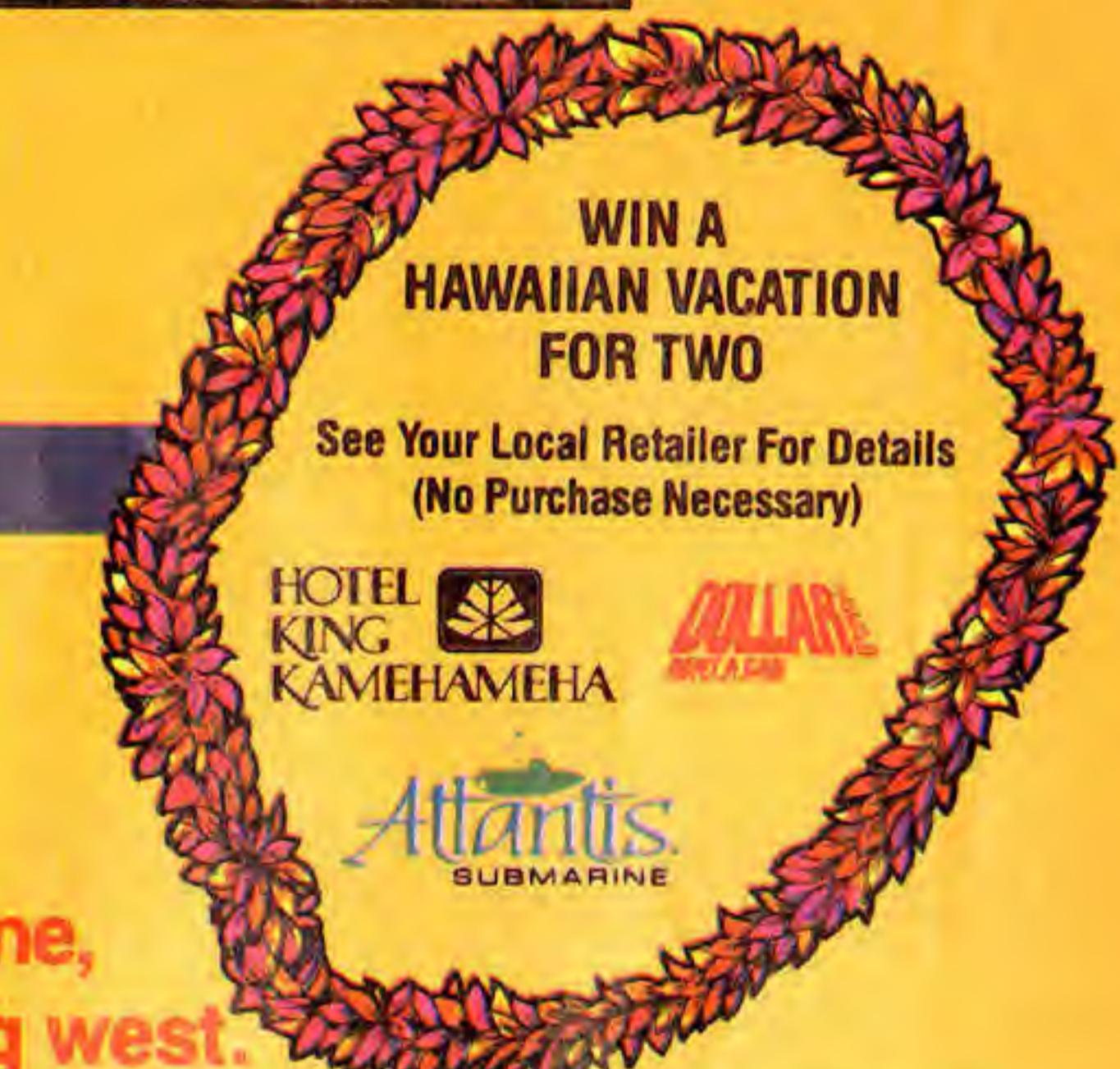
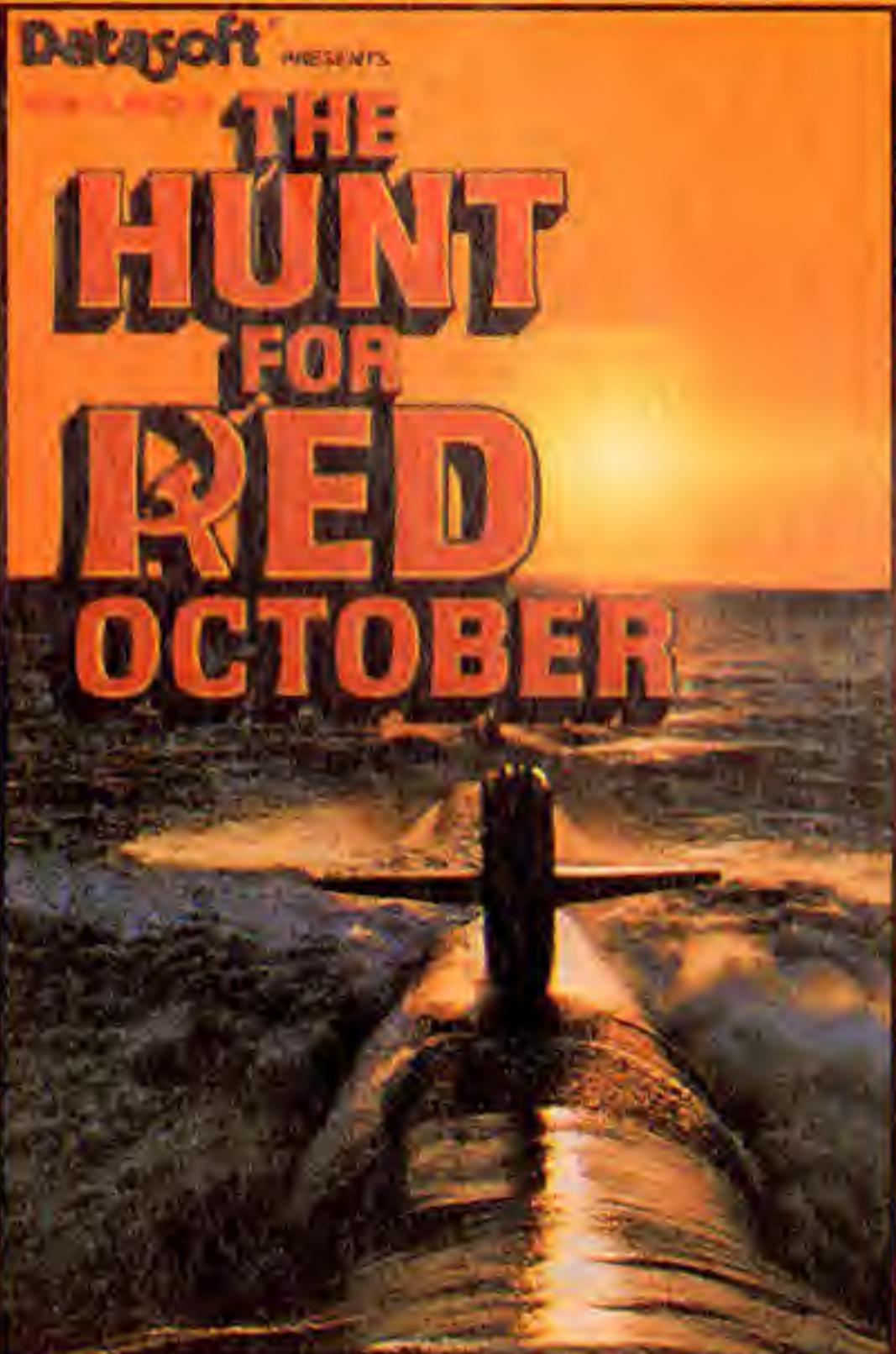


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NBA Action Returns to Form



When I first heard about **Jordan vs. Bird: One on One**, I was excited. You see, I happen to rank the original **One on One** featuring Dr. J and Larry Bird as one of my all-time favorite games. So I figured that a game featuring the spectacular Michael Jordan would have to be great.

Right away, I noticed that this was not the same game simply rehashed with new names. Although the basic theme of the game is the same -- one player going up against another in a half court basketball contest -- there are significant differences between the two games. It was with mixed emotions that I first discovered these differences. On the other hand, **Jordan vs. Bird** is a much more sophisticated game, and a more complex challenge. It also contains two additional, and highly entertaining events -- the 3-Point Contest and the Slam Dunk Contest. On the other hand, my favorite tricks from the original **One on One** didn't work anymore. Patterns of joystick behavior learned from hours with the former game simply got me in trouble. I had to relearn.

So there is a lesson in this. It is perhaps the people who never played the original **One on One** who will learn this game most easily. Throw out your preconceived notions and begin again. Although you can use the keyboard to control the players, I prefer a joystick. Like most games, the joystick more accurately translates your intentions into action. Basic controls during the half court game involve offensive shuffling or running, spinning, and shooting. The game has certain built-in functions so, for instance, if you are driving at a run toward the basket, chances are you will dunk the ball -- especially if you are playing Jordan. However, if you stop first, you will shoot a jump shot.

On defense, you must play for position, go for steals, and attempt to block the other player's shot. To add realism and challenge, you can fake shots and also take stutter steps before beginning your dribble to throw your opponent off.

In the original game, the player's movements were very elegant, but fairly simple. Point them in a direction, and they went that way. In this game, there are some differences. As you try to

reverse direction on a dead run, you don't stop on a dime and go the other way. Instead, there is a moment of hesitation as you compensate for your momentum. This hesitation results in a very different game. It is very hard to make tight little turns. Even Jordan's quickness won't get him around Bird unless he also uses his speed over a distance, or takes Bird out with some nifty moves. And, on defense, if you find yourself going for a fake or getting out of position, you may not be able to recover. Bird just needs an instant free to let a 3-pointer fly, and Jordan can squirt through any crack in your defense to drive to the hoop.

So you find yourself using different tactics, depending on which player you control. Bird's outside shooting is always formidable, and he uses his superior size to take all kinds of jump shots. Jordan is fast, though, and can drive around Bird, leaving him staring at an empty spot on the floor. Jordan has a few "sweet spots" where he can reliably fire a jump shot, but his real talent is the slam dunk, and it's easy to sky him right over Bird and cram the ball. However, in games against the computer, Bird's 3-point shot can often spell the difference, since the computer isn't afraid to take Bird out past the 3-point line and let fly. Also, Bird is a better rebounder, so if you are playing Jordan, you have to really work to keep the rebounds out of Bird's hands.

Missing from the original game are the shattered backboard (you don't see that anymore in the NBA, either) and the foul shot. In fact, if there is one element lacking in realism it may be the fact that you can foul without any real penalty (other than losing possession if it is an offensive foul). Therefore, if the game is tight and going down to the wire, you don't have to worry about being overly aggressive. Fouls won't hurt you.

In two-player (human against human) games, strategy is different. Because we don't react as fast as the computer, fake shots, stutter steps, and changes of pace will often take out an opponent, but, as usual, Bird's 3-pointer is an awesome weapon. I think, to be fair, Jordan

should be able to pick up foul shots to make some 3-point plays of his own (he can make a 3-pointer from time to time, but I wouldn't want to bet the game on it), but then, Bird is a great foul shooter, and would probably end up with the edge there too.

The computer in this version is smarter than in the original, or so it seems. I recommend some practice at Recreation level play before attempting a game at Varsity, College, or Professional level--unless you really like losing. On the other hand, the Professional level is the most satisfying to play. The players get to show all their stuff. But if you really want to see them show all their moves, set the game on Professional level, then tell the computer to play both Jordan and Bird!

I had a little trouble with two aspects of the game. One is the way the buttons on the joystick work. Often it seemed that the buttons didn't respond every time for spins and fake shots, and sometimes I was called for travelling when I was sure I had released the button in time. This could cause some frustration. I also had trouble telling where a rebound was. The computer has a great advantage when chasing down rebounds since it doesn't need to use a pair of three-dimensional eyes to see a two-dimensional image. Also, and this may be purely subjective, I think the programmers have built in a sense of competition. For instance, it really seemed to me that when I was doing especially well, the computer player would step up its level of play to nullify my games.

The 3-point contest is a fun tribute to Larry Bird, the 3-point champ of the NBA several years running. In this game, you must fire up 3-point shots as fast as you can from different positions on the court. Five bins each hold five balls. A perfect score of 25 is possible, but you must also beat the clock, so you don't want to make too many false moves. In this game, timing is everything as you attempt to scoop up a ball and shoot in one smooth motion.

The Slam Dunk Contest is lots of fun. In it you get to choose from an assortment of real NBA-

► 12

style show dunks, including Air Jordan, and the Dr. J Slam. You perform your acrobatics before a panel of five judges who score your efforts. After picking the dunk to perform, you must maneuver Jordan to the correct spot on the floor, then press the fire button to initiate the trick. At the correct moment, you pull back on the stick to execute the mid-air portion, then release the fire button to finish the dunk, hopefully with a successful basket. If your timing is off, however, you are more likely to end up face down on the

court, and your scores will be very low. A perfectly executed dunk earns you a perfect score of 50 points, and a visit from Jordan himself. The graphics in this section are the most appealing, and the dunks are excellently reproduced on the screen. My only regret is that you can't perform these tricky moves during the half court game. By the way, in the audience of all the events is a familiar person wearing the number 6 on his jersey. Nice of you to come. In short, other than a few frustrations due to

human imperfections, I found **Jordan vs. Bird** to be a great entertainment and very challenging. I still like the original **One on One**, and because they are very different games, I can play them both with equal delight.

Name: **Jordan vs Bird: One on One**

Type: **Sports Simulation**

Formats: **IBM, C64**

Publisher: **Electronic Arts**

Garth Hitchens, Mark Madland,

Larry Bird, Michael Jordan

Ages: **10 to adult**

Players: **One or two**

Requirements: **EGA/VGA recommended,**

448K; 256K w/CGA;

joystick recommended

Price: C64-\$29.95; IBM-\$39.95

Ability Level: **Intermediate-Advanced**

Packaging: **Good (8.5)**

Documentation: **Very Good (9)**

Graphics: **Very Good (9)**

Realism: **Good (8.5)**

Playability: **Very Good (9.5)**

CP Rating:

Circle Reader Service Number 12.



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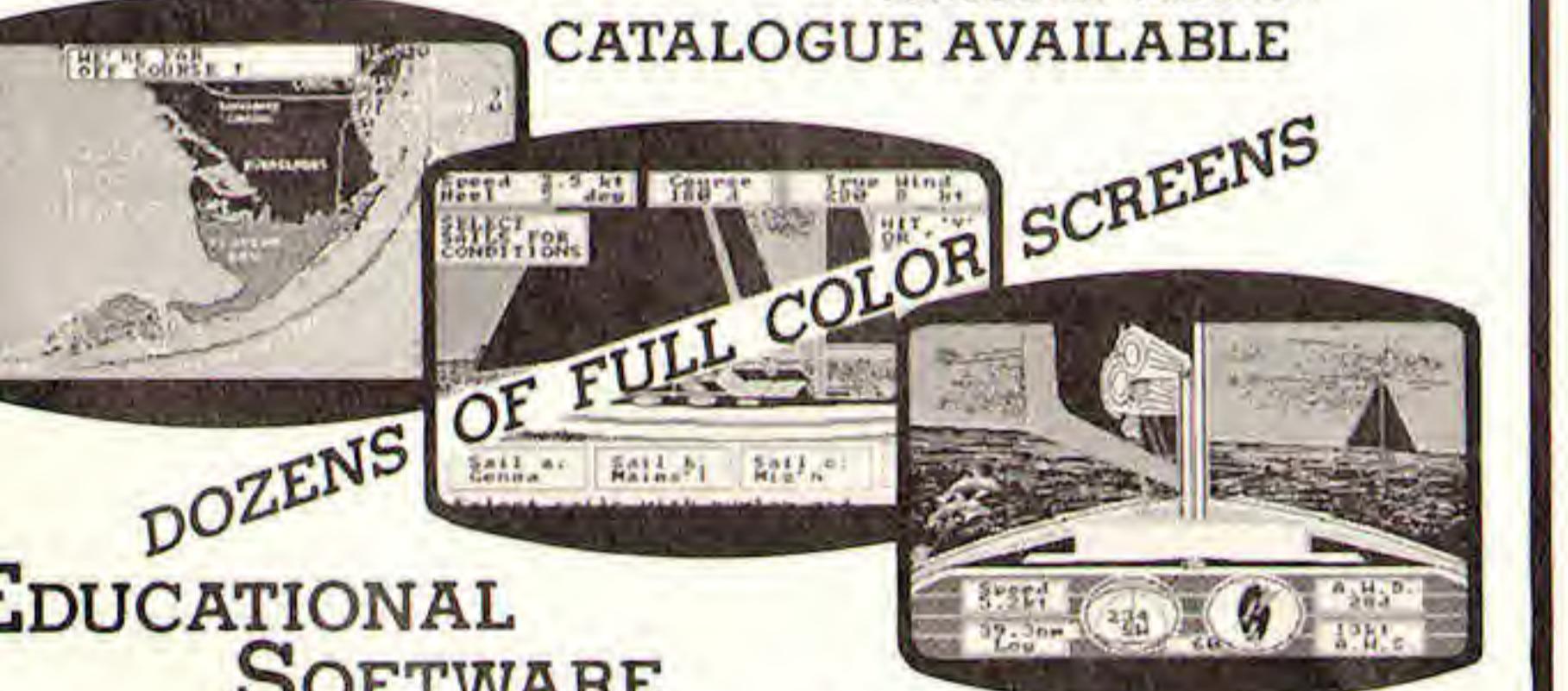
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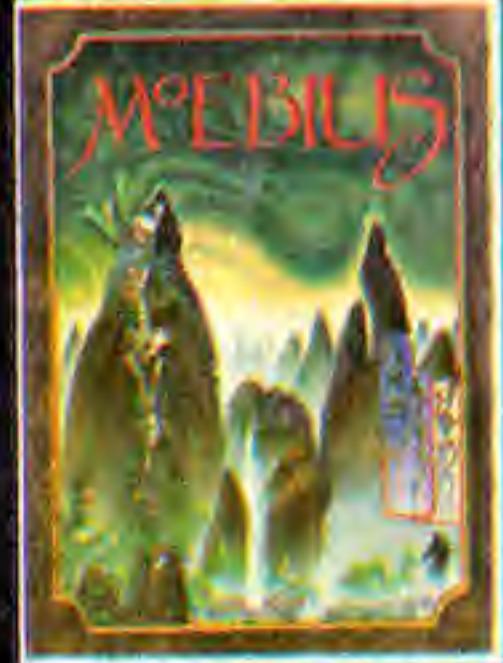
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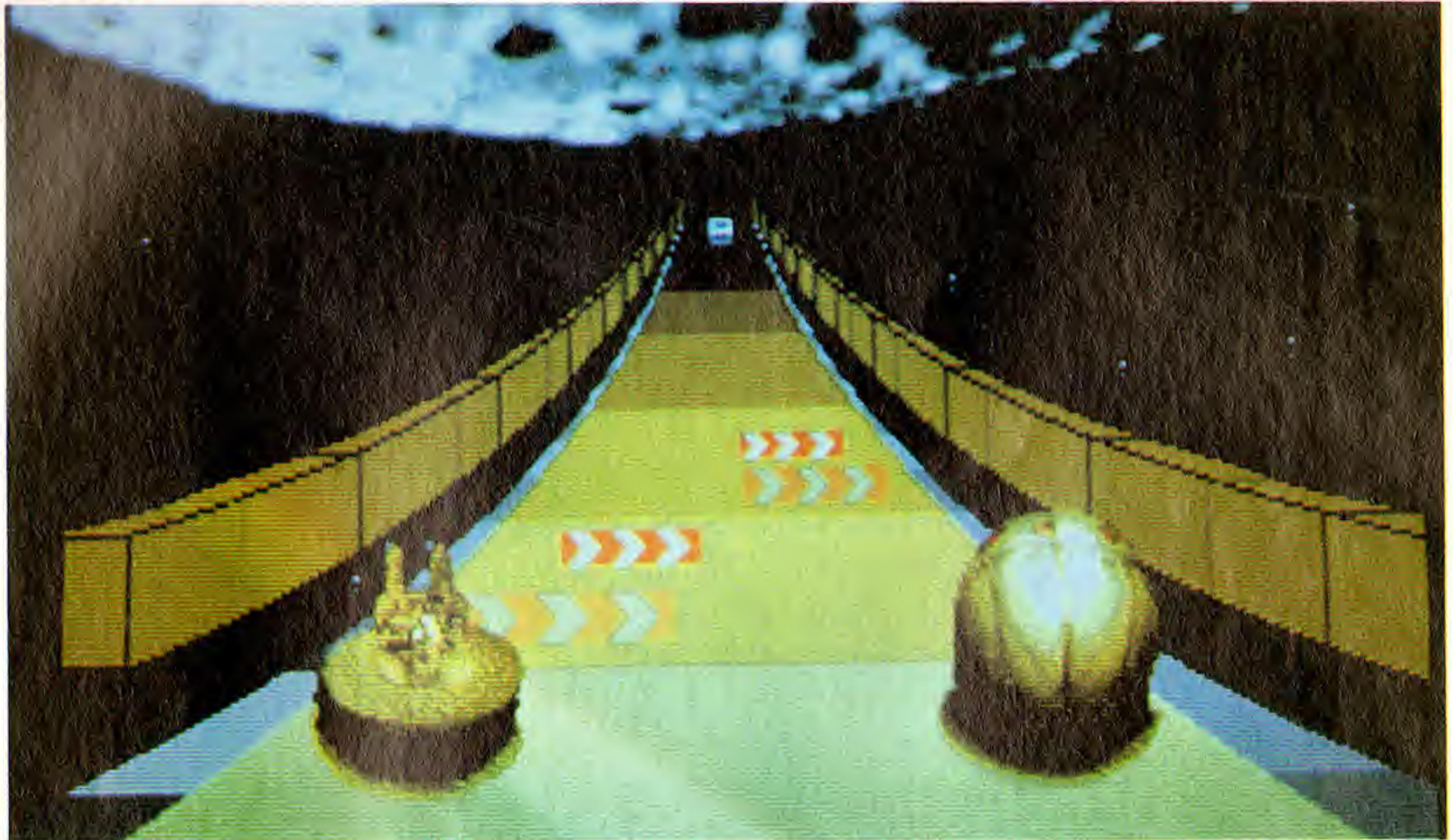


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Armageddon Arcade Action



By Jeffery Scott Hall

Roadwars, from Arcadia Software, brings home the same excitement as that of the original coin-op version in the arcades. After the game has loaded, you may start either a one or two player game, and use a joystick or mouse for control. Once game play has started, you will find yourself entering the planet Armageddon in what is now the 25th century.

THE ROADS OF THE FUTURE

In a remarkable feat of design and engineering mankind has managed to link planets together through the use of space highways controlled by computers. However, something has gone wrong and the roadways are no longer safe to travel. Some of the electric side panels which create a magnetic field to hold the cars on the road have malfunctioned and are now sending devastating blue sparks across the roadway, destroying anything that crosses its path.

However, in order to give you some extra help, you will find an arrow which appears at random in front of the electric sparks emitted by the side panels. If you run over this arrow while you are in defensive mode, you will be given an extra minisphere which orbits your battlesphere. For each mini-sphere that you collect, your fire power will increase by twice of its last strength. You may collect a total of three, at which point you'll be rewarded with extra points for each additional arrow you run over.

OTHER ROADS

After you have managed to destroy all of the side panels in the current road, a bridge will open up allowing your battlesphere to beam over to another road. Each road that you will encounter gets progressively tougher requiring you to have even faster reflexes than the previous one. At the time in which you beam over, you will be given bonus points for the number of enemies that you destroyed on that road, so make sure and use those lasers.

SUMMARY

Roadwars lacks two very important features

that I look for as in a game of this type. First, is the lack of a pause option which allows game play to stop and start at any point of play. This can get to be very tiresome because once you get good enough an average game could take about one or more hours before getting killed, thus not having a pause option for breaks makes game play very long. The last, and perhaps most important is the failure to save the top ten scores to disk. Also, the computer opponent doesn't even keep score for you to really compete against.

While I have the above complaints, I will give Arcadia a great mention for graphics, sound effects, and music. Game play is extremely fast, requiring the most avid arcade person to spend long hours before conquering several roads. If you like arcade games, and don't mind the before mentioned bad points, then Roadwars would be an excellent choice.

Name: Roadwars

Type: Arcade

Formats: Amiga

Publisher: Arcadia Software

Distributor: Electronic Arts

Designers: Unknown

Ages: 10 and above

Players: One or Two

Price: \$39.99

Difficulty: Intermediate

Packaging: Very Good (8)

Documentation: Average (6)

Graphics/Text: Very Good (8)

Playability: Very Good (7)

CP Rating: 7.20

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Circle Reader Service Number 14.

Strategy and Arcade Action Together

By Rawson Slovall

It is the 22nd Century and a world-wide energy crisis has and iron-clad hold on the world. This time conservation won't help and OPEC had nothing to do with it. Even solar and nuclear energy plants can't do it all. This is one heck of a crisis. The only solution lies in a group of 64 small islands in a southern ocean. These islands are the only key to survival but terrorists are attacking and destroying them one by one.

Carrier Command by Rainbird is one of the best simulation games that I have ever played. The player assumes the role of captain of a sophisticated new aircraft carrier. His mission is to foil terrorists' plans and to take over the tiny islands. Only after they are taken over can a manufacturing network be developed and the energy crisis be resolved.

The player is at the helm of a futuristic aircraft carrier that is designed to do the best. It can travel at break-neck speeds. It is equipped with the latest jets (Mantas), amphibious tanks (Walruses), drones, surface-to-surface missiles, and decoy flares. It even has a space-age 360 degree turret-mounted laser cannon that makes the ship virtually unsinkable. Then again, we all know what happened to the *Titanic*...

The jets on the carrier are called Mantas (Multi-role Aircraft for Nautical Tactical Assault). The Manta, which looks like a sting ray, is capable of carrying a wide range of different weaponry.

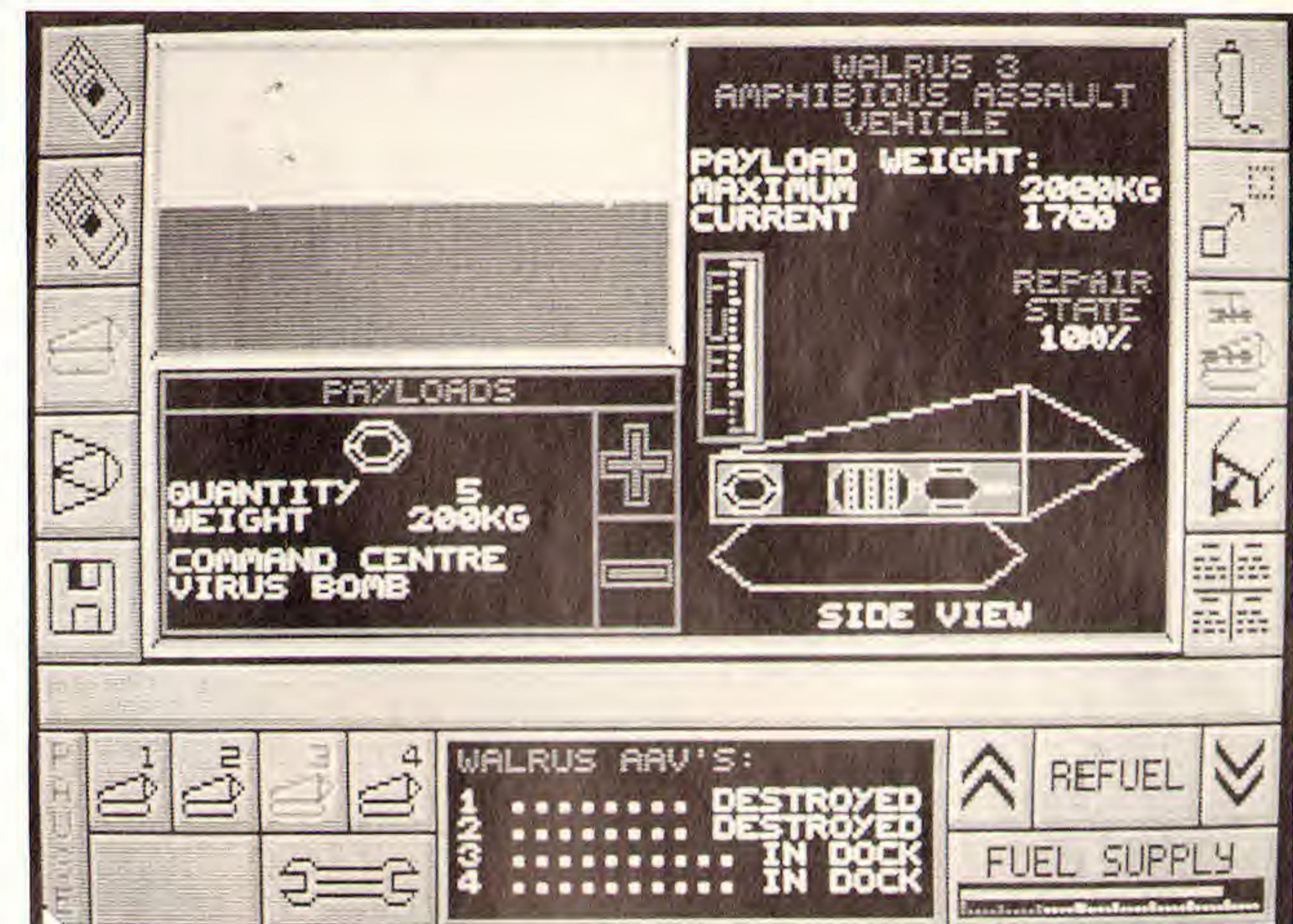
The other vehicle on the carrier besides the Manta is the Walrus. The Walrus (Water and Land Roving Utility Shuttle) is a highly advanced and powerful tank-like amphibious assault vehicle. It can be loaded with various kinds of equipment such as laser cannons, surface-to-surface missiles, as well as a variety of different cargo "pods".

These cargo "pods" that are dropped from the Walrus are called "ACCB Pods" --(Automatic Control Centre Builder), or just ACCB. The ACCB is a state-of-the-art computer and droid combination that specializes in the unsupervised construction of certain structures. These pods, when dropped on a neutral island, immediately start building the necessary structures for turning the island into either a Defense island, a Resource (mining) island, or a Factory island.

By placing these ACCB's on islands, the player constructs an island network that defines links between Resources and Factory Islands so that new materials can be made. Also, this network includes Defense islands and the player's Base island (the headquarters of all the islands.)

The urgent call of distress reaches my carrier: "Thermopolie under attack!" The terrorists are

2183762224 a strategically located island! All hell will break loose if I don't do something. I decide that I must stand firm. I must not concede to terrorists. I must fight for freedom...



Carrier Command has some of the best graphics that I have ever seen. They are solid-fill 3-D graphics that scroll smoothly. Yet the speed of the scrolling is what really impressed me. The 3-D graphics in Flight Simulator II simply "inch" forward, but the graphics in **Carrier Command** zoom in and out, scroll left and right, and pan up and down as if the game were a movie and the joint on the camera's tripod were oiled.

The game manual goes into very interesting detail on the storyline -- how the islands formed, what they're made of, and their use. However many things were left out of the manual. For instance, it hardly says a word about the various buildings and structures on the islands. Only after talking with someone at Rainbird did I learn that the volcano-sized building is a hangar, the "rotating multi-colored cube with stilts" is a radar installation, and the grey thingamajig with a flashing red light is a missile launcher.

All in all, I counted around a dozen different ways that I could have fun with the game. I guess what I'm trying to say is that no matter how tough the game is, I never got bored playing it!

Carrier Command provides a world with an environment where the player is invited to explore and experiment. And the game owes its incredible playability to this "environment." For example, I could not only land my Manta on the carrier, but also on an island runway. I could also land the Manta on an enemy runway (but I died soon after). It's possible to go the right spot in the game and see the terrorists' carrier. I even crashed a Manta into a Walrus that I parked on an island runway 30 minutes earlier. All of these things that are possible in real life are possible in **Carrier Command**. It's obvious Rainbird went the extra mile. The entire environment/3D graphics effect is so awesome it's hard to believe. You have to see it to believe it.

As the front of the box denotes, **Carrier Command** is "high speed action in an intelligent

22 ►

Score Big with the Marines



By John S. Manor

I've always been partial to arcade combat games, **Leatherneck** from Microdeal (the game division of Michtron) doesn't approach the depth of, say, the stand-up arcade version of **Commando**, but I find it to be a reasonably entertaining entry into the field of Rambo-style combat games.

At the start of the game, you are delivered to the combat zone by a landing craft or armored personnel carrier. Four "friendly" soldiers appear at the bottom of the screen, representing from one to four players. Each player gets three lives plus another life at 10,000 points. Your only goal is to advance up the scrolling screen while blasting everything in sight to get the highest score possible. High scores are displayed, but only the top three scores are saved to disk.

The screen scrolls down as you advance upward around walls, buildings and fences, avoiding enemy soldiers, bullets, cannon and grenades. You carry three weapons: a light machine gun, a heavy machine gun and grenades. The light machine gun fires faster, but the heavy gun has greater range, allowing you to avoid enemy bullets while mowing down the soldiers that fired them. Hand grenades will destroy enemy cannon and any soldiers that get too close to the explosion.

Ammunition is limited, but can be replaced by walking over ammo boxes on the screen. If you have no ammo, try to stay out of harm's way and sneak stealthily up the screen until you can find an ammo box. Each box contains equal amounts of ammo for each weapon.

I had some difficulty learning to use the weapons. You have to joggle the joystick quickly side to side to switch weapons. (You can also use the keyboard. Player 1 would hit any key left of 7, y, h and b, for example.) Many times I wanted to lob a grenade but wound up firing an empty machine gun. The weapon in use, your number of lives and score are displayed on the right side of the screen, within a bamboo curtain. (Has this game got a theme or what?) As you joggle the stick your weapons will cycle through heavy machine gun, light machine gun and grenades.

A bullet beside them shows how much ammo you have left for each weapon. The bullet disappears slowly as you fire. When it's gone, it's time to find one of those ammo boxes.

Eventually I got the hang of selecting which weapon I wanted. I don't use the light machine gun much, unless I have no ammo left for my other weapons. You have to be very close to the enemy to hit them with it, which means they can hit you easily and you will soon die. Stay with the heavy gun as much as possible or be prepared to die a lot.

In order to have four players at one time you must order a joystick adapter from Microdeal that fits into the printer port of the ST. I don't know of many games for the ST that allow four players to shoot'em up simultaneously. It could be fun. The instructions, though, warn players to be careful not to shoot each other or throw grenades too close to one another.

Leatherneck is a very tough game to beat. The four player mode could be a definite advantage. The players could work together to see how much further you can get in the game. Besides, I've always found that the more players you have, the more fun you have.

Should you buy the four-player adapter? Maybe. But you have to consider how many games are there that will use four joysticks? Unless, of course, Microdeal comes out with several smashing (and more sophisticated) games for the ST that use this mode.

Sooner or later you run out of lives and the game ends. However, there are some things you can do to extend your game. The main thing to do is, to quote a wise old baseball player, "hit'em where they ain't". Don't just go charging into the battle, try to stay out of the enemy's way as much as possible. Use your heavy machine gun's greater range as much as possible and anticipate where enemy soldiers will appear. They always come out in the same spots, game after game. When confronted by an enemy "pillbox", as I call them, that shoots in all directions, you will find safe spots where its bullets never go. Wait there for the gun to sweep past you, then move in quickly and lob a grenade at it. Just be sure not to miss, or you'll

have to scramble back to safety.

The graphics in **Leatherneck** are good. The scrolling scenery looks real and your Rambo-style soldier looks tough and mean. From the scenery and the music it is obvious you are in an Asian country. There are bamboo shacks and exotic flowers. Other bits of scenery include fighter jets and helicopters that have been shot down. The screams of the enemy soldiers you shoot sound very real. This makes me wonder if the game might not be too intense for younger players.

Leatherneck comes on a single-sided disk with a brief instruction manual. The manual has a BBS number to call for product support. I never got through to that number and when I called it kept ringing. I used another phone number on the back of the box, and connected with the BBS.

I mostly played **Leatherneck** in the one-player mode and found it to be a challenging and fun game. I enjoyed playing it when I first bought it and I still like it. **Leatherneck** gives you a taste of the stand-up arcade combat games, while you wait for a more sophisticated home computer version.

Name: **LEATHERNECK**

Type: Combat Arcade Game

Formats: Atari ST

Publisher: Microdeal, U.S.A.

Designer: Steve Bak

Ages: 12 to adult

Players: One to Four

Requirements: Color Monitor, joysticks, special adapter for three or four players.

Price: \$39.95

Ability Level: Beginner to Intermediate

Packaging: (6)

Documentation: (7)

Graphics/Text: (8)

Playability: (7)

CP Rating: 7.15

Circle Reader Service Number 15.

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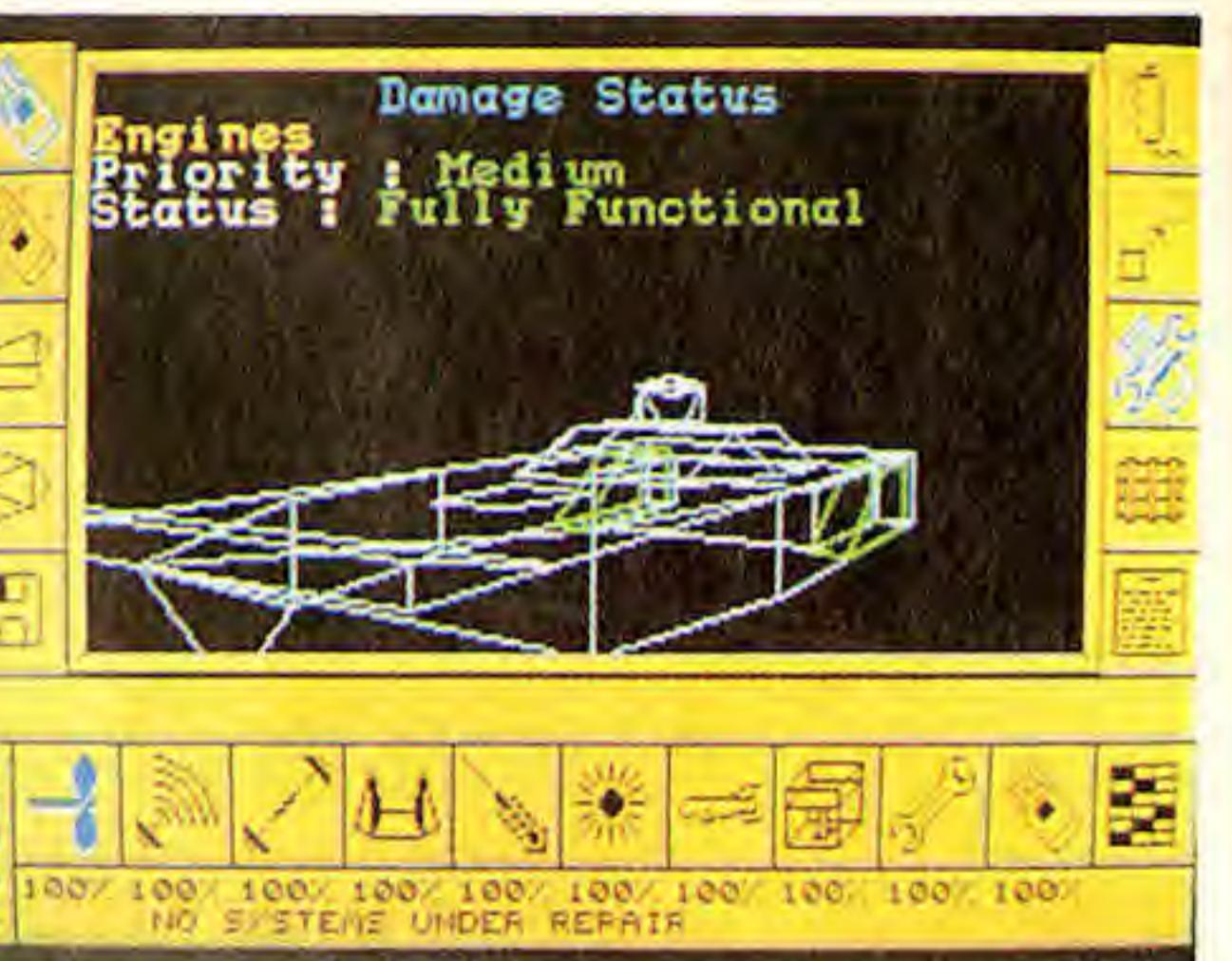
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◀ 20

game of tactical warfare." It is a perfect blend of fast action and strategy. The game is so very, very complex and there is so much to the game that I can't even begin to tell it all.

In today's computer game world I rarely come across a game that is truly revolutionary... But **Carrier Command** with its animation-like, solid 3-D graphics, and complete game "environment" is a milestone in computer game simulations.

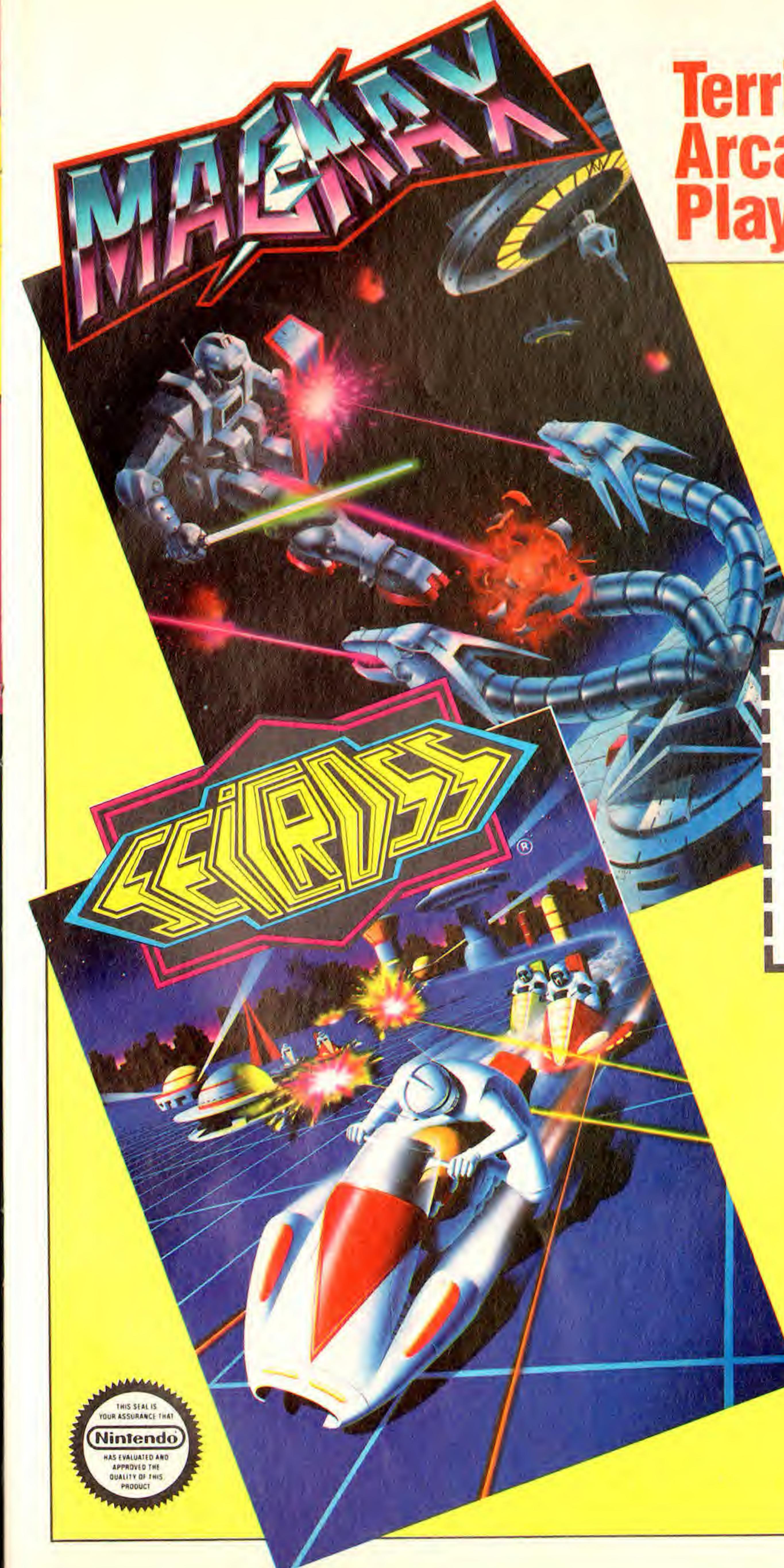
Under a hail of missiles my aircraft carrier speed towards the coast of the small island that is now in enemy hands. Enemy jets appear on the horizon. I launch two Walrus amphibious units and a Manta to attack the heavily guarded island. Dozens of laser bolts burst from my carrier. One of my Walrus is destroyed. Buildings on the island explode. Missiles slam into my carrier. The remaining Walrus runs ashore and speeds toward the island command post. More missiles pummel the carrier. More enemy buildings explode. My Manta is shot from the sky. Debris and shrapnel from the buildings and structures rain down upon the island. The damage on the carrier from the missiles is too much. The carrier has sunk -- all is lost. The game is over, but **WHAT A GAME!**

Name: **Carrier Command**
Type: Simulation
Formats: Atari ST, Amiga, Macintosh, Commodore 64, and IBM
Publisher: Rainbird Software
Distributor: Mediagenic, Inc.
Designer: Realtime Software
Price: \$34.95 - \$44.95
Ages: 13 and up
Requirements: ST; color machines only;
MS-DOS; CGA
Players: One

Difficulty Level: Very difficult
Packaging: Very Good (8.5)
Documentation: Average (6.5)
Graphics: Excellent (10)
Realism: Excellent (9)
Playability: Excellent (10)

CP Rating: 9.20

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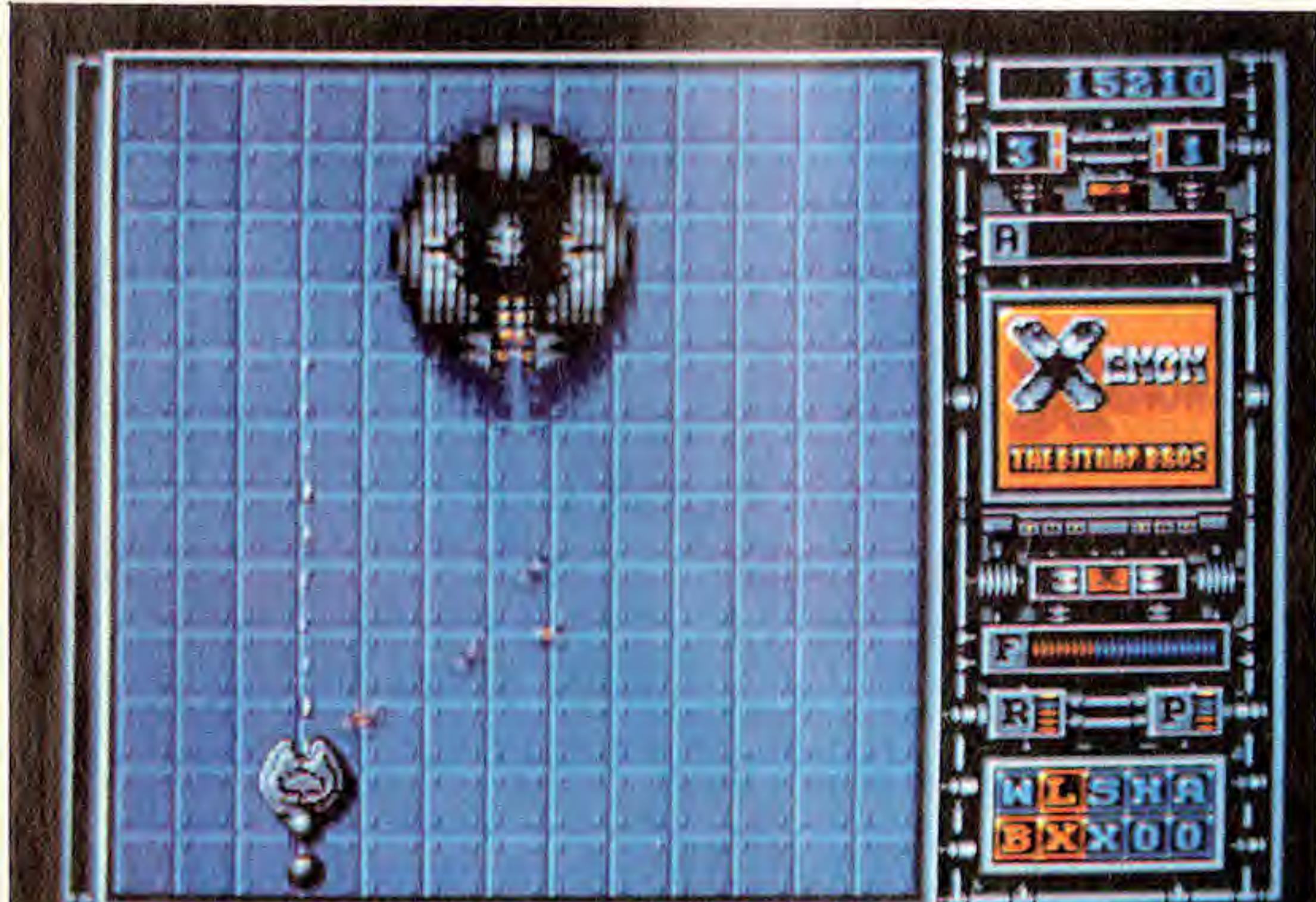
Three Arcade Winners from Arcadia

By Jeffery Scott Hall

From Arcadia comes **Awesome Arcade Action Pack** Volume 1 containing not one but three disks jam packed with hot arcade excitement. Like other titles from Arcadia, this one is being distributed under Electronic Arts affiliated labels program. Not knowing what to expect, I opened the package with hesitation. I pictured three games of cheap imitations that just could not survive on their own and needed the others to back them up. Never have I been so surprised until I started playing all three games. Next thing I knew a few hours had passed along with a few million shots. So, without further delay let's take a closer look at all three games starting first with **Xenon**.

XENON

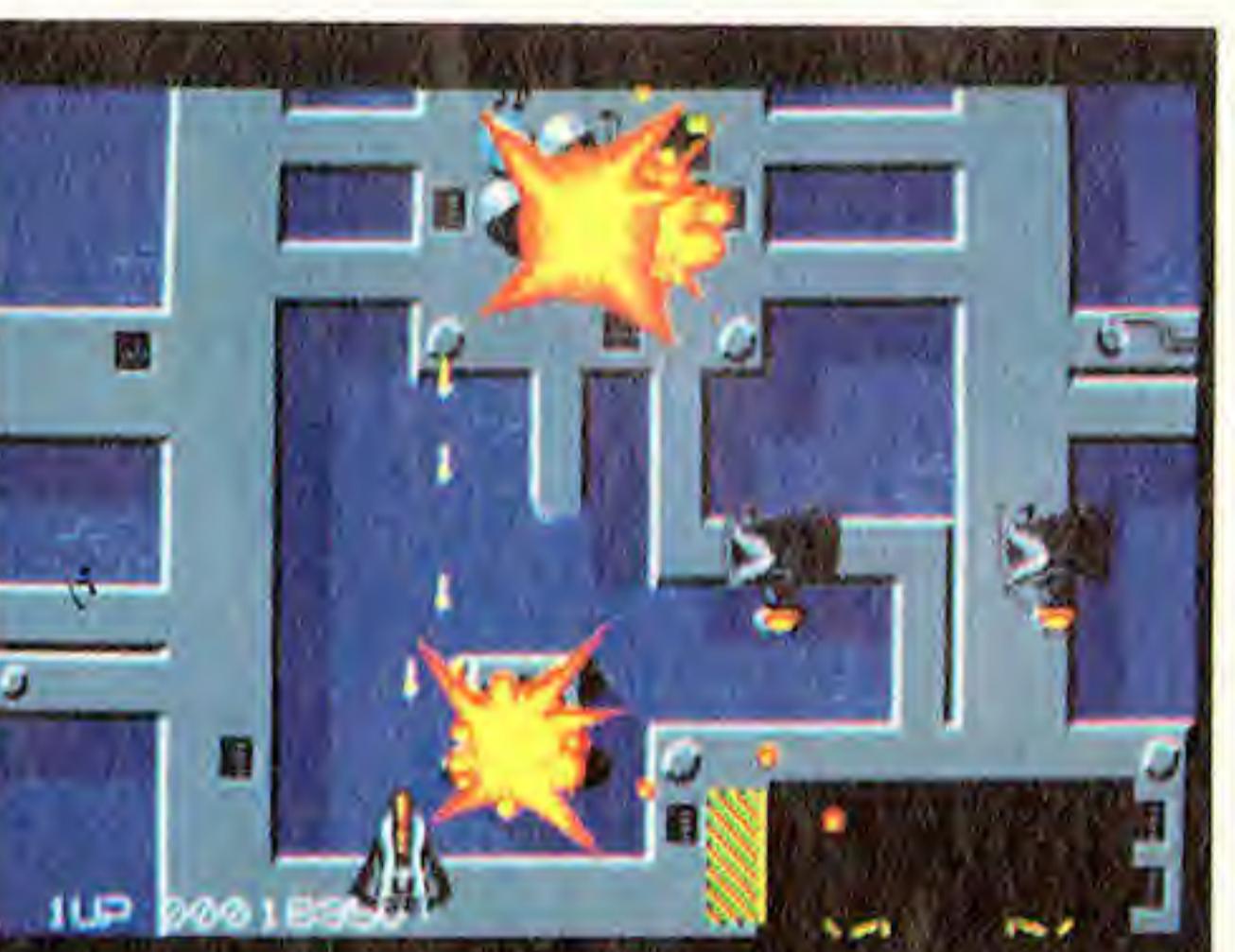
Xenon is a vertically-scrolling game which borders along the lines of the Atari coin-op game **Xevious**, but gives the player a unique twist in that you can switch back and forth between a ground craft and a jet fighter. Gameplay takes place in sixteen sectors and four zones, with each posing a different threat. You can play with either one or two players and start with three lives. At the far right of the screen you will find the status panel. This displays information you need to know about both the game and your craft. The top of the status panel displays four different numbers. On the top you will find your current score. Just below, you will find two separate indicators displaying a single digit number. The one on the left tells you how many lives you have left, while the one on the right gives the current sector number you are in. Below this you will find your craft's altitude



BLASTABALL

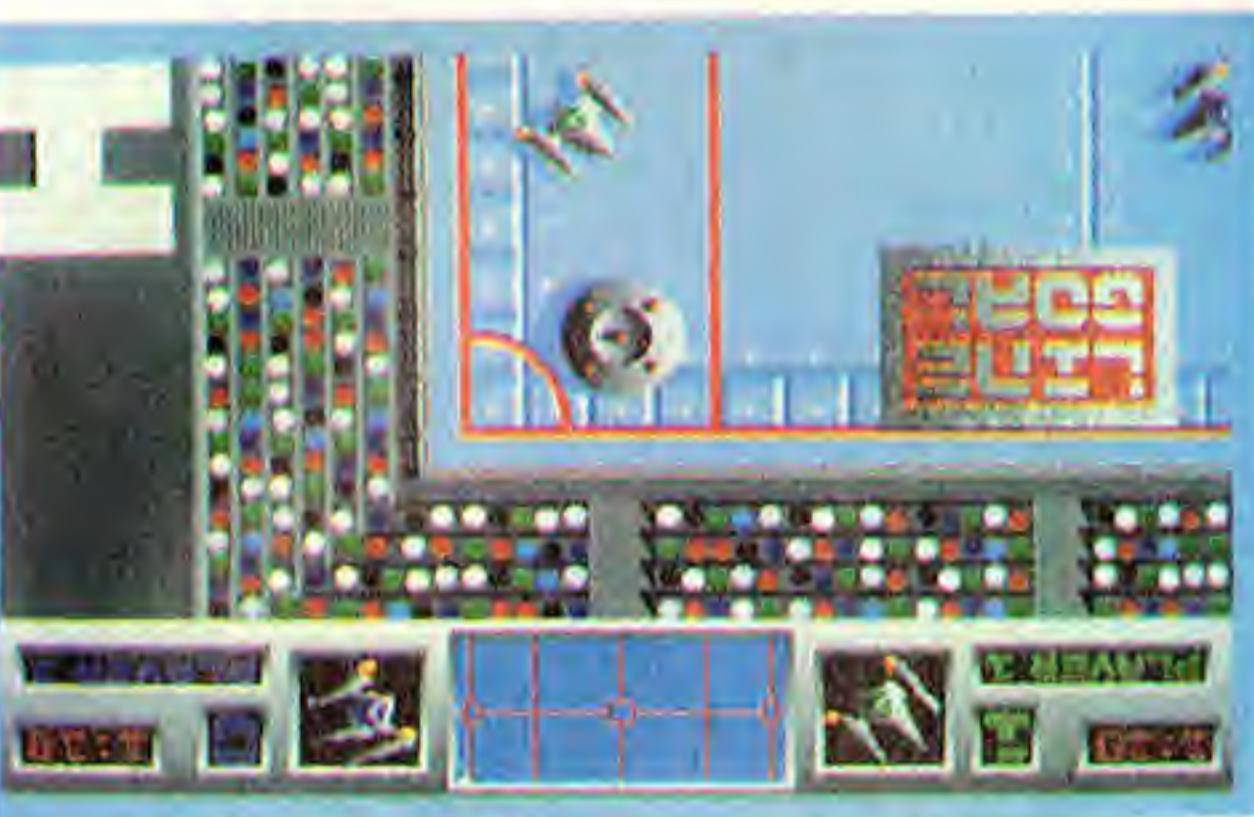
Have you ever wondered what ice hockey might be like in the 37th century? Well, **Blastaball** gives you a pretty good idea as two ships take to the sky for the ultimate in a hockey type environment. You have a choice of ten different ships to choose from, each with its own unique capabilities. Once a ship has been

25 ►



◀ 24

chosen both you and your opponent will use them for that game. **Blastaball** is a harmless sport in which no body gets hurt due to the design of the ships which allow them to act like bumper cars in the air. The goal is to either blast the ball with your lower power energy beam or to bump it using the ship into the opponents goal. You will always start in the center where you and your opponent fight for control of the puck to see whom can score first. In order to keep track of the puck and both your ships, a radar screen is displayed at the top of the screen. The game ends when either you score nine points or the three minute timer runs out.



SIDEWINDER

In **Sidewinder** you must pilot a galactic battle cruiser through the Star Killer which is a massive space station armed with many defensive and offensive weapons. After starting the game you will be provided with three ships, of which your goal is to make it past all five levels of the ship which are: scout, raider, lancer, and blitzer with each posing a different threat to your mission.

During game play you will find four different kinds of power packs to add extra functions to your ship which are: rapid fire, power shots (destroy a multiple hit target with one), ghost (makes you invincible), and hover (stops forward thrusters allowing you to hit targets that would not be able to move). If you are hit by enemy fire, your extra ships powers are lost along with a life, so be careful.

Just when you think you've made it to the end



SUMMARY

Looking over all three games, I have found only two major complaints. First, none of the games have included a high score table allowing them to be saved to disk. After all the work that Arcadia has put into the development of the games, it would have been much nicer to see your scores in a top ten listing instead of just being dropped after leaving the game. Second, the manual that comes with the games is fair due to misspelled words which make it difficult to read and understand. Hopefully, in volume two both the manual and inabilities for a high score table will change!

Arcadia has produced perhaps the finest arcade package I have ever seen on any home computer. All three of the games combine great sound effects and graphics to make them appealing to any arcade addict. If this is just volume one, I can hardly wait to see what Arcadia has in store for us in volume two!

Name: **The Awesome Arcade Action Pack Volume 1**
Type: **Arcade**
Formats: **Amiga**
Publisher: **Arcadia**
Distributed by: **Electronic Arts**
Ages: **10 and above**
Players: **One or Two**
Price: **\$49.95**

Difficulty: **Intermediate**
Packaging: **Good (8)**
Documentation: **Fair (4)**
Graphics/Text: **Good (8)**
Playability: **Good (8)**

CP Rating: **7.90**

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The Truth About Joysticks

By Fred Blechman

Joysticks have been part of the computer scene ever since the video game craze of the late 1970's. However, a great deal of confusion exists about the different types of joysticks and their compatibility with different computers and programs.

I've used about ten different joysticks with various programs on several microcomputers, and they generally worked pretty well. However, when I started using joysticks on my IBM PC/XT, I found that different joysticks worked better with some programs than others. I recently found out why!

This article will describe, in non-technical language, how the joystick, computer and program are interrelated - and how you can make the best choice of joystick to use with a particular program on the IBM PC.

Joystick Types

Despite the differences (or similarities) in physical appearance, there are really only two types of joysticks - switch and analog.

The switch-type joystick, used on the Atari, Timex, Commodore and many other computers over the years, consists basically of four switches, one each for up, down, left and right. The circuitry looks for a switch either open or closed and responds appropriately. This on-off approach makes for fairly simple circuitry, but not very precise control.

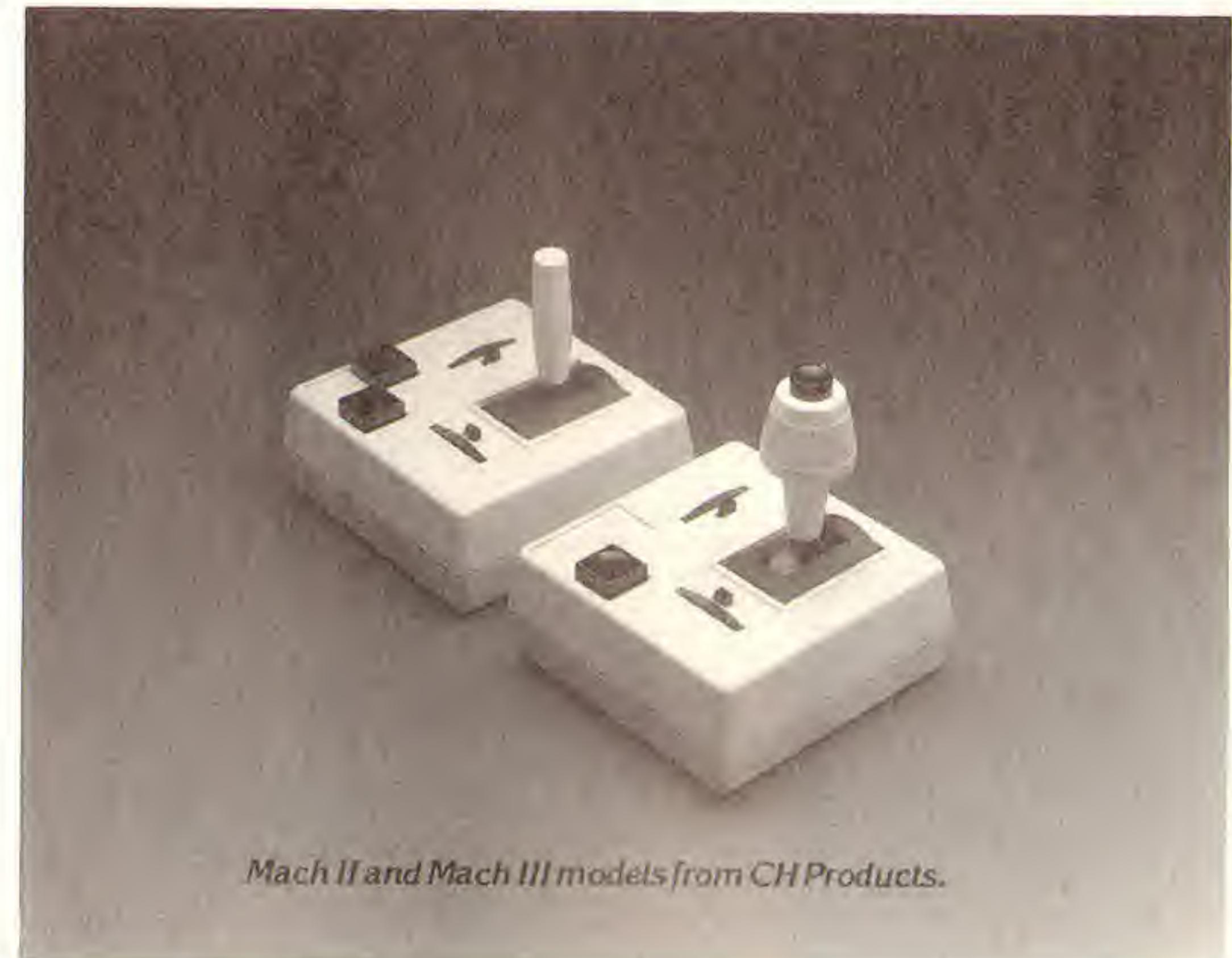
The analog-type joystick, used with Apple and IBM PC compatibles, uses two variable resistors (called "potentiometers" or "pots"). One controls up/down movement, the other is for left/right. The resistance of each potentiometer at any instant is directly related to the position of the joystick. Control is precise if the potentiometers, circuitry and programs are properly matched.

In both the switch and analog joysticks, the control stick is usually mounted in a swivel ("gimbal") arrangement that allows freedom in any combination of up, down, left, right or circular movement.

With the switch-type control, action is only taken when movement closes a switch, usually at the extreme left, right, up, or down position. By moving the stick to a corner, two switches will be closed at once.

The analog stick is always reading and controlling. Knobs, levers or slide bars (called "trimmers") provide either a physical adjustment of the gimbaling mechanism or a change in resistance to allow "centering" the stick reading.

The firing buttons are simple switch closures, although the circuitry that reads them differs between computer types. Some joysticks even have built-in auto-repeat firing circuitry.



Mach II and Mach III models from CH Products.

Which Stick Is Which?

If you're buying a new joystick the box should identify the type. Some will say "IBM and Apple".

By merely rewiring the button circuitry inside the joystick, and changing the connector, an Apple joystick can be made to work with an IBM. Since many manufacturers have had Apple joysticks in their inventory, some have become creative and use a switch to change the configuration from Apple to IBM, and include adapter cables to mate with the proper connector.

Why could this be a problem? Apple and IBM joystick-reading circuitry, though similar, is not identical. The recommended value of the joystick potentiometers, for example, should be 150K (150 thousand) ohms for an Apple, and 100K ohms for an IBM. Depending on the specific program you're running, you may have to move the stick very little to get a large change in screen action - or a large movement may have

a small effect, you may also not be able to reach program limits. Some software is designed for certain joystick values to work properly!

Also, be aware that joystick quality varies considerably. Some have dead spots in their potentiometers, or use cheap audio-taper pots instead of linear-taper pots, and some joysticks simply fall apart with continued use.

In addition to the box marking, another means of identifying an IBM joystick is the connector at the end of the cable. The IBM PC game port connector is a DB-15 female. This is a 15-pin trapezoidal-shaped socket. Therefore, the joystick cable should terminate in a DB-15 male plug. The Apple II and II^S use a 16-pin DIP (dual-inline pin) plug. The Apple IIe and IIc use a male DB-9 9-pin plug. The Atari and other switch-type joysticks also use a DB-9 connector, but they use the female socket instead of the male plug. So, if you can count pins, and can figure out what a male and female means, you should be able to



Flightstick model from CH Products.

The "Zoomer" from Beeshu. - 28 ▶

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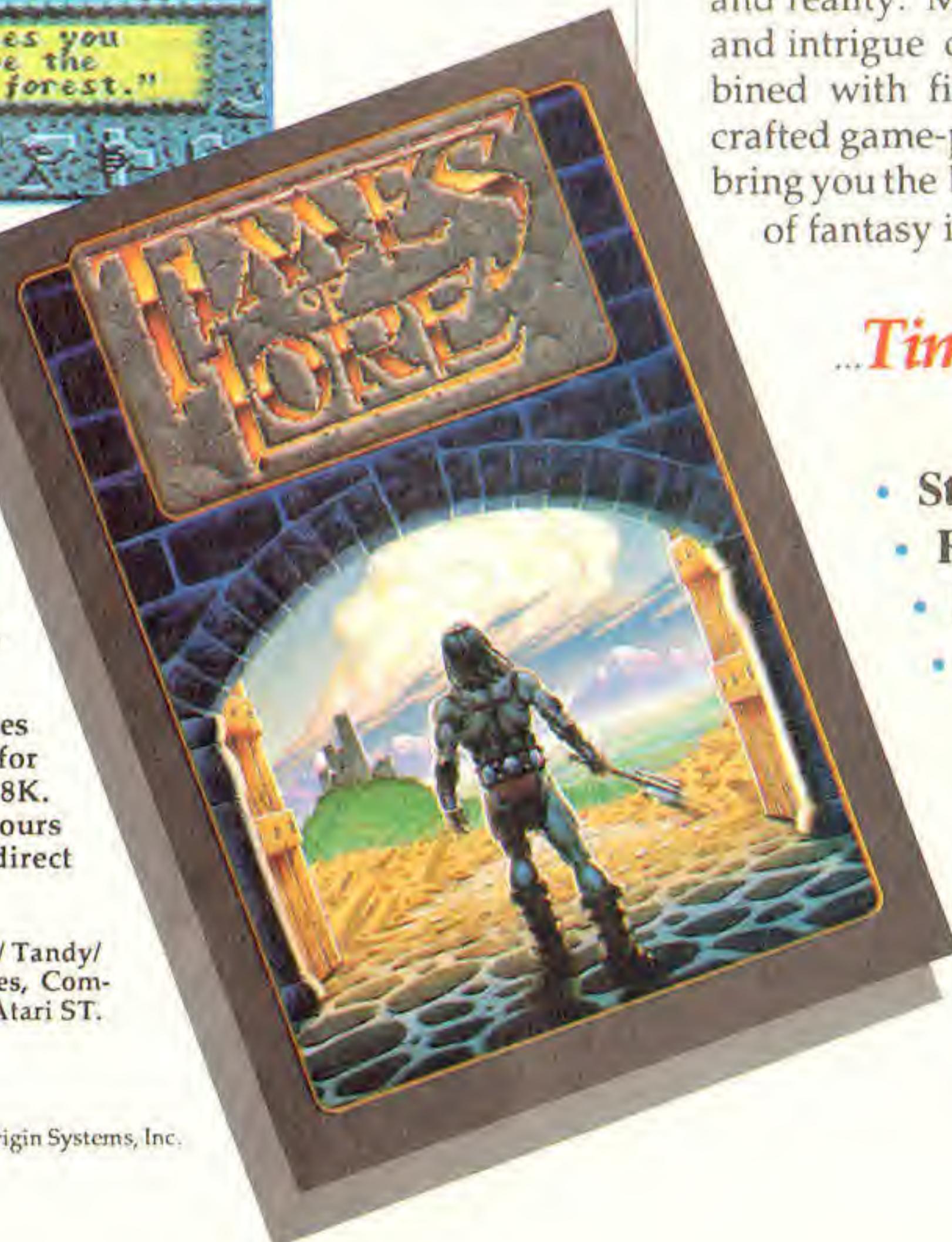
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Screens shown are for the Commodore.

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The Differences Between Color Monitors

By Fred Blechman

If you own a microcomputer, you need a monitor - a screen display - to see what's going on. There is a tremendous amount of confusion surrounding monitors, since there are so many types.

This article will explain the most common terminology in non-technical terms, and describe the difference between various types of monitors and how to identify them.

Monitor Types

In the "dark ages" of microcomputing (up to about five years ago), TV sets were commonly used as display screens. Because of their poor resolution (you were lucky if you could clearly see 40 characters on a line) and interference patterns (internal TV circuitry radiation combining with computer signal radiation), the display left a lot to be desired.

As the microcomputer industry matured, display improvements were demanded by users, and a bewildering array of monitor types have evolved.

In the single-color "monochrome" (usually white, green or amber) field, there are "composite" and "TTL" types. Color monitors can be composite, "RGB TTL", "RGB analog", "EGA", "VGA" or "multi-sync".

Manufacturers describe their units as having "medium", "high", "super-high" or "ultra-high" resolution, with absolutely no industry

standard to define these arbitrary classifications. Be careful of claims!

Composite Monitors

Composite monitors are available with either monochrome or color output. The term "composite" is derived from the fact that the standard broadcast color television signal in the United States is a composite of all the necessary video, color, audio, and synchronization signals, combined into a single output signal. This is usually referred to as an "NTSC" (National Television Systems Committee) signal.

A computer intending to use this type of monitor usually uses an "RCA phono jack" - a socket about 5/16" in diameter with a center hole. The mating concentric "RCA phono plug" has a mating shell with a projecting center pin. This plug and jack combination are commonly used with audio equipment, as much of which was originally made by RCA, hence the derivation of the name.

A composite monitor is designed to accept the NTSC signal, break it down into its components, amplify the video and audio signals, display the picture and feed the sound to a speaker (which is usually built into the monitor). A composite monitor is essentially a TV set without an antenna or tuner section. Without the limitation of separating TV channels, a monitor can have a much higher "bandpass", allowing more information to get through.

The process of combining signals, then separating them, creates distortion. Add to this the various undesired side effects of harmonics, beat frequencies and oscillator instability and you end up with "crawlies" or interference patterns on the screen. While a composite monitor will produce a far better picture than connecting your computer to a TV set (usually thru an "RF modulator" to the TV antenna), there is still a lot left to be desired.

Then why are composite monitors so popular? Because they represent a step-up for most users compared to TV sets, and are an absolute necessity when dealing with text exceeding 40 characters on a line, or graphics with more than 320 dots ("pixels") on a line. They are also about one-quarter the price of RGB monitors.

RGB Color Monitors

To solve the high and ultra-high resolution needs of today's more sophisticated microcomputers, such as the IBM PC and its workalikes, RGB monitors - long used in industry - provide the cleanest signal. "RGB" actually stands for "red", "green", and "blue", the three colors used to generate all other display colors. Each of the three colors, instead of going through various forms of electronic manipulation to provide a composite signal, is processed in its purest form,

and then combined in the monitor for the final display.

There are two basically different types of RGB monitors - digital (usually called "TTL" for "Transistor-Transistor-Logic") and analog. Until recently, RGB TTL monitors were the most commonly used for color graphic displays. Lately, RGB analog monitors are coming on strong as the new IBM "VGA" standard takes hold.

RGB TTL monitors process 0-5 volt digital signals, but some process only positive-going signals, others negative-going only, and some handle either. The "sync" (synchronization) can also be positive or negative, and is sometimes carried on the green signal (called "composite sync"), but usually the horizontal and vertical sync pulses are separate. Most RGB TTL monitors provide an "intensity" input that allows the use of 16 colors instead of eight, but not all computers issue an intensity signal.

Now you adjust the brightness and contrast of your monitor to show all 16 colors as shades of gray. This allows you to run CGA programs with no hardware or software modifications - although you don't actually have color.

For more information, contact Avocado Computer, 17352 Yorkshire Ave., Suite 12, Yorba Linda, CA 92686. Phone: (714) 528-1025.

Picture Resolution

Color monitors, by their very nature, are not capable of producing as clear a display as a monochrome monitor. A monochrome screen is composed of a continuous phosphor coating made up of microscopically small particles, each of which is capable of glowing. A color screen, on the other hand, is composed of a discrete number of individual red, green and blue phosphor "dots" arranged in "triads." The distance between dots is called "dot-pitch", normally expressed in millimeters (mm.). The smaller the dot-pitch distance, the higher the resolution the screen is capable of producing, if the bandpass is relatively high.

You must match the monitor you use to the computer. Different computers or display boards use different signal types and sync frequencies. For example, RGB TTL monitors for IBM's CGA (Color Graphics Adapter) will not work with an EGA (Enhanced Graphics Adapter). Similarly, IBM's VGA (Video Graphics Array) requires an RGB analog monitor!

Some "multisync" monitors are smart enough to run just about anything, but they are expensive and still might not work with your particular hardware. It's a jungle out there!

The Grayscale Alternative

If you have an IBM PC, most games require a CGA board. This usually means an additional cost for an RGB TTL monitor as well as the CGA board. That can be several hundred dollars.

If you are willing to buy the CGA board

(around \$40), there is a reasonable alternative to buying a RGB TTL monitor, especially if you already have a monochrome composite monitor. The "Grayscale" is a small adapter that sells for \$39.95 and converts the RGB output of a CGA board to 16 shades of composite monochrome!

You simply plug the Grayscale into the RGB jack of the CGA board, then plug the composite monochrome monitor into the RCA jack of the Grayscale. That's all there is to the installation.

Now you adjust the brightness and contrast of your monitor to show all 16 colors as shades of gray. This allows you to run CGA programs with no hardware or software modifications - although you don't actually have color.

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The quality is really in the eye of the beholder.

The stiffest test is having two units side-by-side displaying the same picture. Most RGB TTL monitors provide a readable, though not necessarily sharp, picture. The difference shows mostly in text, and is less critical with most color monitors today than a couple of years ago. The resolution of newer EGA and VGA monitors will compare very well with even a good monochrome monitor.

What To Look For

When shopping for a monitor, make sure it will handle the display signal configuration of your computer. Monochrome or color? Composite or RGB? Analog or TTL? CGA, EGA or VGA? Will the sockets match, or is there an adapter cable provided?

Many inexpensive monitors are perfectly adequate for use with the older low-priced home computers (Commodore 64/128, Apple II, Atari 8-bit, etc.) However, if your computer produces 80 characters on a line, and very high-resolution graphics (640 dots on a line compared to the typical 256 dots on a line for older home computers), a high-resolution monitor is required for a good display. Some so-called "medium resolution" monitors will display all the characters, but although they might be readable, they will not be sharp and clear. This can be very tiring to your eyes.

When shopping for a monochrome monitor look for specifications like "18 mHz bandpass", or "2000 character display", or "80 x 25 Characters", or "650 lines of resolution" (higher is better in all cases).

For a color monitor, look for a bandpass of no less than 12mHz and a dot-pitch no greater than .39 mm. Although a lower bandpass and higher dot pitch will still give you a readable picture, text will be tiresome to read. If your only interest is graphics and games, you may find "looser" specifications perfectly adequate, and lower in cost.

The best test is to hook up the monitor you're considering to your computer to be sure of hardware capability, then fill the screen with text and judge by the sharpness of the characters.



The "Ultimate" joystick from Beeshu, also available as a remote control unit.

◀ 26

identify any joystick type from its connector.

The remainder of this article will only be concerned with joysticks for use on the IBM PC and its compatibles.

Using Two Joysticks

Some games, especially adversary "arcade" games, use two players, and therefore two joysticks. At least one flight simulator program, Sierra-On-Line's "3-D Helicopter Simulator", uses two joysticks. Since games and simulators continue to become more sophisticated, we can

expect more programs to support two joysticks.

IBM BASIC and Microsoft CWBASIC provide commands for two joysticks with two buttons each. But all the IBM joysticks I've found are wired only as STICK 1, pins 1-7. So how do you use two joysticks at once? There are two solutions: a game board with two ports, or a "Y" cable.

The "PC Game Control Adapter" is a PC half-card that has two game ports, each wired to accept a standard IBM-type joystick. Pins 1-7 on each connector are routed to the appropriate circuitry on the card to read each stick separately - one as STICK 1, the other as STICK 2 - even though the joysticks and their connectors are identical. The card merely plugs in an empty slot, and the two joysticks are plugged into the two connectors. By their action in the program, you can quickly identify which is STICK 1.

These game cards are getting rare, since most "multi I/O" boards contain a single-connector game port, and most people either use no joystick at all, or only one. Game cards are sometimes available, from \$20 to \$40, at computer stores, computer shows, computer swap meets and computer magazine mail-order ads.

If your game port has only one 15-pin connector, it is in all likelihood still wired to operate two joysticks. You need a "Y-Cable Adapter". Kraft Systems sells one (#820043) for \$14.95. CH Products also sells one (#300-051) for \$14.95. The adapter plugs into the single game port and splits into two connectors, into which you plug the joysticks. There is nothing to set or change.

Clock Speed

You may also be confronted with another problem - computer clock speed. If the program you're using expects standard 4.77 MHz IBM PC speed, and you're running at a higher speed, things will happen faster than they should.

This can make flight simulator programs, for example, uncontrollable. For this reason both Kraft Systems and CH Products produce game boards that allow you to adjust the game circuitry to compensate for the speed change. Kraft's #82004-1 Joystick Adapter Card (\$34.95) has a three-position switch that allows you to select PC, XT or AT modes for precise joystick control. CH Products' GAMECARD III Plus (#300-050 for \$59.95) is a joystick adapter card that adjusts for joystick resistance as well as computer clock speeds to 16 MHz.

How Do You Choose?

Joysticks are just another area of potential incompatibility with particular programs. You are probably wise, if you plan to use IBM joysticks on a regular basis, to have a Kraft Premer III (100K) and a CH Products Mach III or FlightStick (both 150K) and use the one that works best with a particular program. I've tried these joysticks, and they are all excellent quality. I've tried other less-expensive joysticks and was disappointed in them, especially with various flight simulator programs.

If you are going to use only one or two programs with a joystick, contact the software manufacturer and ask them what joystick they recommend for their program.

Color Boards for the PC

By Fred Blechman

Trying to use a computer without a display is like trying to walk in almost complete darkness. Before the IBM PC hit the marketplace, almost all ready-built microcomputers either had their own built-in displays, or plugged into TV sets or "monitors".

TV Sets and Monitors

While TV sets were usable, their "bandpass" - the amount of information they could process - was limited to about 3.5 mHz (millions of cycles per second) because of the requirement to tune out adjacent broadcast channels.

A monitor, on the other hand, could have a much broader bandpass (18-20 mHz) because it was processing only one signal directly plugged into it.

TV sets were pretty much limited to displaying text with no more than about 40 characters on a line, but a monitor could show 80 characters on a line. For graphics the difference was not as evident.

The monitors, whether "monochrome" (either white, green or amber characters on a black background) or color, invariably were "composite monitors", handling a complex signal containing all the necessary information on a single two-wire cable. These could easily be identified by the single circular concentric input jack (usually called an "RCA jack" because it is so commonly used in typical home audio equipment).

A composite monitor produced a much clearer and more stable picture than a TV set, and allowed more characters to be displayed on

the screen. The monitor does not itself produce characters or graphics. This is all done within the computer and merely displayed on the monitor. Therefore, the better the monitor "resolution" the clearer the display.

Composite monitors are designed to U.S. television standards, and are sometimes called "NTSC", since they comply with standards created by the National Television Systems Committee.

Things were pretty simple. You either got a color or monochrome composite (NTSC) monitor, plugged it into the RCA jack on the back of your computer, and you got a pretty good picture. As a matter of fact, most of the 8-bit computers (the older Ataris, Apples, Commodores) still use composite monitors today.

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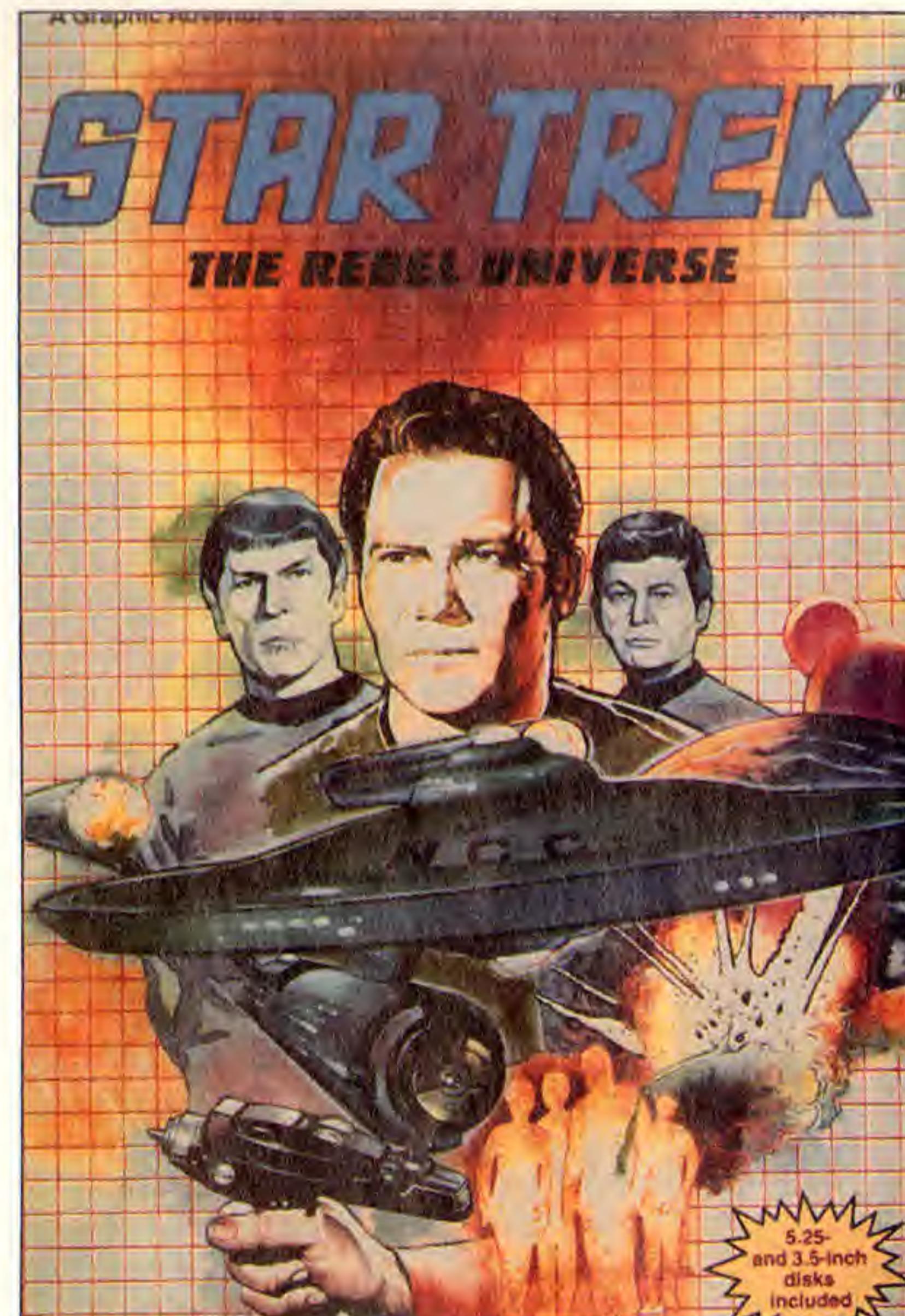
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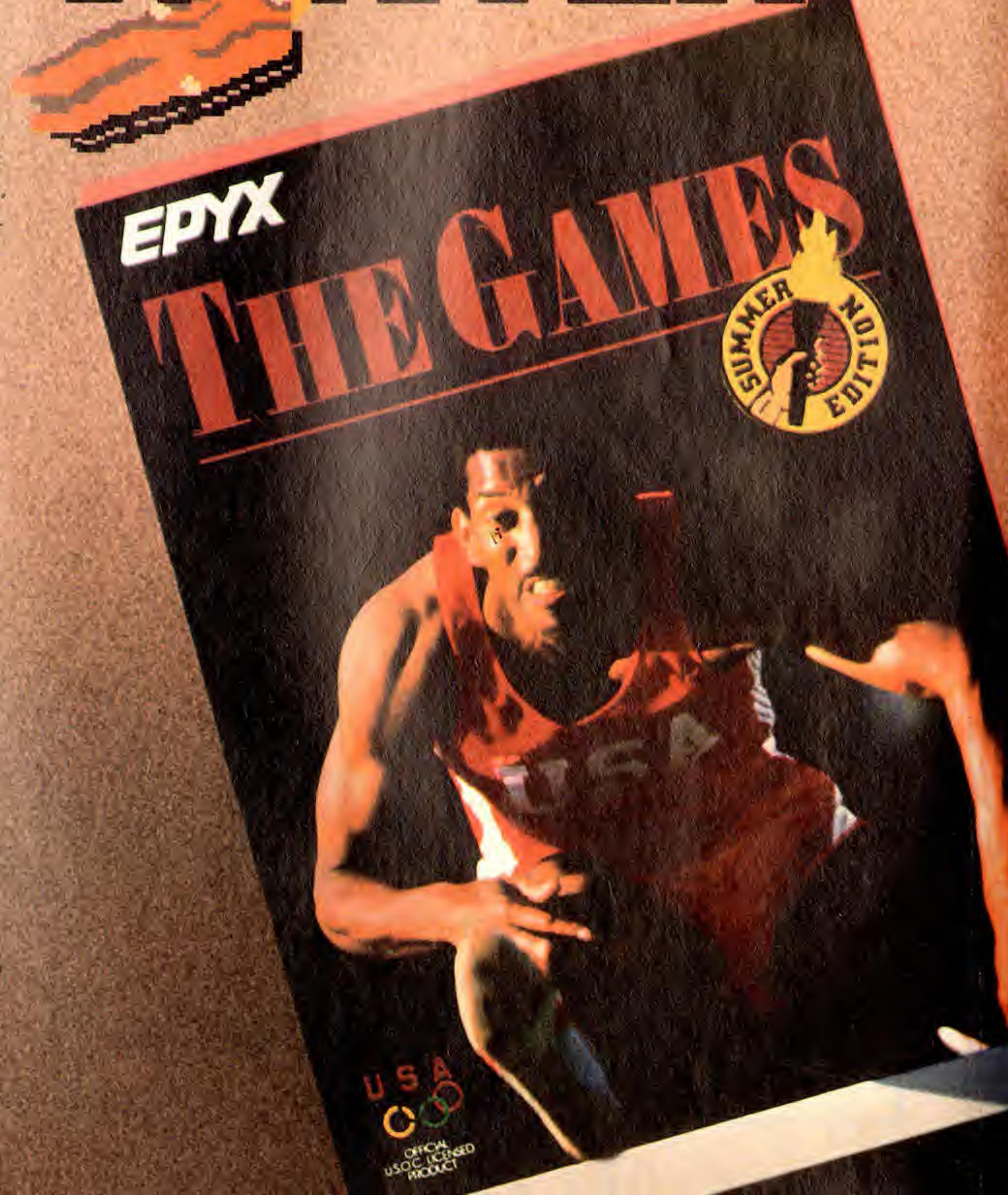
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Among others, the IBM PC has changed that. With the IBM's "open architecture", you install a circuit board (frequently called a "card") to determine the display characteristics and the type of monitor required. The remainder of this article is about the various display boards used on the IBM PC.

Monochrome Display Adapter

If you use the Monochrome Display Adapter (MDA), you get one-color high-resolution characters only. This includes regular text characters plus the "extended character set" to provide single and double border lines. However, you can't use the MDA for true graphics, like circles and slanted lines.

The MDA provides exceptionally sharp characters. Each character is formed within a 7-dot wide by 9-dot high matrix in a space 9-dots wide by 14-dots high. This provides two dots of horizontal spacing between standard characters, and five dots vertically, which eliminates crowding. The borderline characters, and some other characters, use the entire space. There are 80 characters on a line, and 25 lines. If you work out the numbers, you'll see this takes a resolution of 80 x 9 or 720 dots across and 25 x 14 or 350 dots high. This is called 720 x 350.

To get this resolution for their monochrome display monitor, IBM modified the standard TV vertical and horizontal scan frequencies (60 and 15,750 cycles per second, respectively) to 50 and 18,432 cycles per second to produce more "pixels" (picture elements or dots) on the screen. Also, to reduce interference from signal mixing, they directly used the computer's digital 5-volt signal levels (called "TTL" for Transistor-Transistor-Logic).

This means if you use an MDA board, you'll need to have a TTL monochrome monitor designed to receive video, intensity, horizontal synchronization ("sync") and vertical sync signals on individual pins, and with the non-NYSC vertical and horizontal scan rates. Monitor manufacturers produce compatible TTL monitors at a much lower price than IBM's. The monitor cable has a trapezoidal-shaped 9-pin plug.

IBM Color and Graphics

With the Color Graphics Adapter (CGA) you get limited graphics and up to 16 colors (actually, eight colors with two intensity levels for each). While you can now do true graphics,

there are some serious color and resolution restrictions.

In the highest resolution mode, you can have 640 dots across and 200 high. With 80 characters on a line, and 25 lines, that means each character space is 8-dots wide and 8-dots high. In order to leave horizontal and vertical spacing between characters, the characters are confined to a 5-dot by 7-dot matrix. This yields poorly defined characters compared to the MDA mode of 7 by 9 for each character. While you can get 16 colors of text with this resolution, you get no graphics. If you want graphics in high resolution, you go to monochrome! In lower resolution, 320 by 200, you can get graphics and text in eight colors-but only four colors at a time.

The CGA board has two output jacks on the back. The RCA jack is for monochrome composite video, but it shows only four shades of brightness to represent the 16 possible colors, so some color combinations "disappear." Furthermore, with some programs, text is completely unreadable from this output.

The other jack on the CGA board is a 9-pin jack identical in appearance to the one on the MDA monochrome card. This jack is for a relatively expensive TTL-level RGB (Red-Green-Blue) color monitor. This monitor operates at the standard TV sweep frequencies of 60 cycles per second for vertical and 15,750 cycles per second for horizontal. Be careful! Since the scan rates and pin connections for MDA and CGA adapters are different, you could injure your monitor by plugging it into the wrong card! What genius at IBM decided to use the same kind of socket for both - and also, as you'll see later, EGA?

EGA is rapidly becoming the industry standard. It produces 16-color graphics with 640 by 350 resolution, but requires a special RGB TTL monitor with a high horizontal sweep rate (21,800 cycles per second), and a sensing circuit to drop this rate to 15,750 cycles per second when CGA is being used. The character space is 8 by 14 dots as compared to MDA's and Hercules' 9 by 14 dots. Be careful-this still uses a 9-pin connector!

The VGA is usable only with 80286 and 80386 equipped computers, such as the IBM AT and some PS/2 models. It can display 256 colors from a palette of 262,144 at a 320 by 200 dot resolution, and 16 colors from the same palette of 262,144 for a 640 by 480 dot resolution. Characters spaces are 8 by 16 dots. Another special monitor is required - an RGB analog operating with a horizontal frequency of 31,500 cycles per second. The VGA adapter uses a 15-pin connector.

What Do You Need?

With few exceptions CGA will run just about anything you want. Some programs also support EGA, and will look better, but will also run in EGA. A notable exception is Spectrum HoloByte's "FALCON AT", which requires BOTH an AT computer (80286 microprocessor) and EGA as a minimum.

recognized by their trapezoidal-shaped 9-pin input jack.

Hercules

The so-called "Hercules Board" is named after the company that added monochrome graphics to the 720 by 350 MDA resolution. Many companies produce Hercules-compatible boards, which have become the standard for IBM monochrome. However, to do graphics requires special programming. This is provided in the software you buy if it says "Hercules compatible" or some such similar expression.

EGA and VGA

Not content with the poor resolution and limited colors available with CGA, IBM has produced two more sophisticated graphic boards - EGA (Enhanced Graphic Adapter) and VGA (Video Graphics Array). Dozens of competing manufacturers make boards that accept these standards and go beyond them. Typically, EGA and VGA boards are also downward-compatible to the previous CGA and MDA standards, and also usually handle Hercules as well.

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It is hard to find a composite NTSC monochrome monitor these days. How can you tell which is which? Look at the input connector. A composite NTSC monitor has an RCA input jack. It may have more than one, and may have an audio input jack as well. TTL monitors are

Fly High as Maverick

By Fred Blechman

I've just spent hours playing the part of an F-14 Tomcat Navy fighter pilot with an inexpensive arcade game called **Top Gun**. Available for the IBM PC and Atari ST from Thunder Mountain (Mindscape's "low-end" label), I tested the IBM version (which sells for only \$9.95!) and found it very compelling.

Here we are back in combat again - with a vengeance! In this program you actually have a split screen display, with the left side looking through the windshield of Player 1 (which is the computer in a single-player game), and the right side shows the view through Player 2's windshield.

An INSTALL program allows **Top Gun** to be made self-booting on the 5-1/4" copy-protected floppy disk. No mention is made of availability on a 3-1/2" microdiskette. A CGA board is required. The instructions don't tell you this, but if you have BOTH monochrome and CGA boards in your PC, you'll have to add the MODE.COM file from your DOS disk, and add MODE CO80 to your AUTOEXEC.BAT file on the Top Gun disk to make it self-executing.

You are Maverick, the top fighter pilot in the Navy. Your F-14 Tomcat is a high-powered, highly maneuverable craft equipped with cannon, Sidewinder missiles and high-heat magnesium flares to decoy enemy missiles. At the start of the program (after selecting the player options) a split-screen shows both your aircraft carrier and the enemy carrier. Both aircraft then take off, and your screen changes to the split-screen cockpit views, with you engaging the enemy fighter plane in a deadly, hi-tech dogfight.

The upper portion of each screen shows a weapons sight and a horizon with no landscape features. Unfortunately, there is no sky/sea reference other than a horizon line. When you roll beyond 90 degrees you can get disoriented and not know if you're right-side up or upside down. This couples with the extremely agile rolling capability of this aircraft, makes it easy to overcontrol into a series of rolls. If you let the controls alone, the aircraft rights itself automatically.

At the center of each screen the weapons sight appears. You see a cross-hair sight when cannons are armed, a square sight when you have the missiles armed, or no sight when you are ready to protect yourself from an enemy missile by dropping a decoy flare.

At the top of each screen two digital readings appear. On the left is the altitude in feet, and on the right is the airspeed in mach number.

The lower portion of each screen has a number of indicators. A miniature side view of the aircraft is used as a pitch (nose up/down) indicator. You can go straight up or straight down, but no loops. The F-14 climbs and dives

very rapidly, and it is easy to carelessly crash into the sea.

A cannon temperature indicator lets you know when your cannons will quit from overheating if firing continuously. It takes 25 direct hits for a plane to be shot down, and a damage indicator shows that status. When a plane is finally shot down, it spins uncontrollably.

Another indicator tells whether the enemy plane is above or below. One of the most important indicators is a radar display that shows the distance and direction to the enemy plane. There's a thrust level indicator and selected weapon indicator as well as a missile lock-on indicator.

When you start the program, you are allowed to select keyboard or computer for Player 1, and keyboard or joystick for Player 2. Only Player 2 is able to use a joystick.

I tried four different joysticks. They were all too touchy with Top Gun in the turning function. I found myself rolling over and over whenever I tried to make a steep turn. It took very small movement to overcontrol with a joystick, so I ended up using the keyboard. Even with the keyboard, control is uneven. If you stop using keyboard commands, the plane quickly stabilizes in a level position. This means you have to constantly be pushing keys to maintain any attitude except straight and level. This keeps you involved, typical of an arcade game.

I'd suggest practicing by setting both players to the keyboard, with you as Player 2. The program takes some getting used to, and it's easier if you have Player 1 flying straight and level instead of chasing you down!

Once you have the idea and a little practice, set Player 1 to computer, and you become Player 2 with the keyboard. This is quite challenging, although with practice I was able to shoot down the computer consistently - though not easily.

Using the radar, you locate your enemy and maneuver into position to fire on him. You can climb, dive, turn and roll to line up the enemy in your cannon or missile sight. As you get closer, the enemy plane quickly grows from a dot to a detailed 3-D F-14 Tomcat aircraft in actual relative position. If the enemy plane turns, climbs or rolls, the image changes size and perspective accordingly! This level of graphic sophistication is surprising in such an inexpensive program, and greatly adds to the realism. It's too bad this graphic skill was not also used to differentiate the sea from the sky, to prevent roll disorientation.

While things are happening on the right screen, the left screen (your enemy's windshield and instrument panel) is just as active. You will frequently see your F-14 lined up in the enemy's gunsight! That's the time to get outa' there by turning, climbing or diving, all of which you'll

see in real time. Also, despite the graphic detail of both planes, things happen at true arcade speed, even on my plain-vanilla standard-speed 4.77 mHz PC/XT.

I found that cannons were easiest to use and gave you the most hits, but since it takes 25 hits to down the enemy plane, you have to chase him around a lot. On the other hand, missiles frequently down the enemy with one shot. However, before firing the missile you are required to "lock-on" with the enemy aircraft in your sights for three seconds. That isn't easy if the enemy is maneuvering. Also, the enemy can drop a flare to divert the missile.

Fighting against the computer was challenging, but winnable. It seemed to me the computer missed some good shots, but got better as the dogfight progressed. I suspect that playing against another live opponent is even more exciting.

The program is supplied in a stiff transparent plastic folder designed for rack display. The documentation consists of a large folded sheet with what amounts to twelve 5" x 5" pages, well-written and adequately illustrated. The different keyboard controls for the IBM PC, PCjr and Tandy 1000 are clearly defined.

The discreet use of sound added to the visual effects without being annoying. Music was played during the initialization, with different sounds for cannon, missile, and "kill" actions. I was absolutely fascinated with this program, both from the challenging and technical aspects.

Name: **Top Gun**

Type: F-14 Tomcat Arcade Game

Formats: IBM PC/XT/Jr., Atari ST

Publisher: Thunder Mountain (Mindscape)

Designer: Jon Woods

Ages: 10 to adult

Requirements: CGA graphics, 128K

Players: One or two

Prices: IBM-\$9.95; Atari ST-\$14.95

Ability Level: Beginner-Intermediate

Packaging: Fair (4)

Documentation: Average (6)

Graphics: Very Good (8)

Realism: Good (7)

Playability: Very Good (9)

CP Rating: 7.63

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Vietnam Action At Home



Over the past year, a lot of arcade games have made it home to the personal computer because of the efforts of Data East. The company has translated its most popular titles into home versions for the serious arcade game lovers, including **Karate Champ**, **Kung-Fu Master**, **Speed Buggy**, **Kid Niki** and **Karnov**. More recently, Data East has been devoting a lot of time to the development and marketing of an original title that was designed directly for the home computer market, rather than translated from the arcade. Ironically, this game is their best. As an arcade game based loosely upon the movie of the same name, **Platoon** aims for higher success than any of the other games released by Data East.

Platoon is made up of six sections, each requiring different arcade skills to succeed. Some of the sections are very short and can be finished quickly. Others take a while to get used to and may take a considerably longer time than the other sections to complete. Keep in mind that time in an arcade game is very short. A game that lasts twenty or thirty minutes is considered long. All the sections of **Platoon** put together reach that length. However, some sections only last four or five minutes, as opposed to the 10 minutes others take. That half hour won't be spent bored--I can guarantee that.

Data East spent a lot of time on promoting **Platoon** and announced the game months in advance of its release to get people interested in the game. All this effort did not go to waste. **Platoon** is a very fast-paced game, with great graphics, easy-to-use joystick controls and music that steadily grows in tempo as you get closer to the finale. The atmosphere that **Platoon** creates is that of the movie and the game play revolves

around the story of that award-winning motion picture. Because each section of **Platoon** has different game play, it is easier to analyze the game in pieces. So here goes nothing.

Although the game is described as having six sections, which it indeed does, there are five times that the computer must load a section up from the disk. Sections 3 through 6 are loaded separately and involve distinct scenes, but Section 1 and 2 are linked together onscreen. Section 1 is the Jungle and Section 2 is the Village in **Platoon**. You have a five-man platoon that you can control in these sections of the game and you can switch from one man to another as desired. The plot is that you must escape the jungle and a large patrol that is following your men. You prevent the enemy's advancement by finding explosives and blowing up a bridge to prevent their crossing. After blowing up the bridge, you go to the Vietnamese village, where you look in huts for a flashlight (even though it says "torch" in the manual), map and trap door that leads to Section 3. You get to the village by moving your man past the bridge; so, in this regard, the two sections are connected into one long sequence that takes ten minutes to complete.

It takes a while to get used to the joystick in the Jungle and Village sections. You guide one man through different screens and along different paths in the jungle that strongly resemble one segment of **Aliens: The Computer Game**. The paths of the jungle go left, right, up and down, with a new screen coming up when you move in a vertical direction. Trees sometimes block your movements and you have to retreat. Although the manual suggests that you map the jungle, you neither have the time or the need to do so.

The game moves too fast to stop and draw lines on a piece of paper. With enough experimentation, you will have the correct route through the jungle memorized and you can move on to bigger and better things.

The joystick moves your soldier in the four directions and the fire button lets a bullet fly from your gun. Enemy soldiers are constantly chasing you, falling out of trees, coming out of trap doors in the jungle's floor and generally getting in the way. You have to take them out as soon as they appear, while you are moving, to have any success, for you still must find your way through the maze. Along the way, you'll also encounter trip wires across the path. You must hop over these carefully. Normally, when shot by the Vietnamese soldiers, you take a hit. Each of your five platoon members can take only four hits before given a "retired in action" status. A trip wire kills a soldier instantly. These are the most dangerous things you'll encounter in the jungle.

You can easily switch to another soldier if the one you're currently using has three hits, in order to preserve as many men as possible. The joystick controls the soldier fluidly. However, I have a couple of minor complaints about the jungle part of the game. The trip wires sometimes appear in front of the vertical path leading up or down "out of screen." This means that you instantly die if you try to go in that direction because you can't get on the path over the wire. I found a remedy to this problem. Go back the way you came until the wire is off-screen. When you return, the wire will either be gone or on a different part of the path. A bigger complaint is the random placement of wires and

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snipers in the ground that sometimes places them behind bushes along the path that give the game a 3-D effect. Because these elements are hidden, you don't see the soldier or wire and lose hits or a life. Data East should have prevented this situation from happening, because I lost many a good man in this way until I memorized the quickest route through the jungle and thus lessened the chances of such an occurrence.

Vietnamese soldiers constantly attack you in **Platoon**, throughout the entire game. They are nowhere quicker or sneaker than in the jungle. You have to deftly move the joystick to beat this section. In particular, you must be able to turn around, duck and fire at enemies that come from behind to avoid getting too many hits. Because of the many enemy soldiers, people may get discouraged with the first section. Keep trying—it only took me fifteen minutes to master the movements. Along the way you sometimes happen across yellow boxes. These take away a hit for any soldier. When you see one, quickly switch to the soldier that has the most hits and pick up the box. His hit count will be reduced by one. If you preserve all of your men until you reach the bridge, you will be able to restore all of them to perfect health. Every soldier you hit after the bridge and before you enter the village drops a yellow box. By switching soldiers, you should be able to bring everyone back up to health.

The village is nothing more than seven or eight huts that you must enter. The controls are the same for your soldier, with one difference. When you enter a hut, by pushing up on the joystick in front of an object, a description of the item is given to you. Some objects are booby-trapped and will kill a man instantly like the wire. But, unlike the wires, these booby traps are not controlled by randomness—they are in the same hut every game. In these huts, you must find a map (of the tunnels you are about to enter), a flashlight and the trap door leading to the tunnels. There is really nothing to this section of **Platoon**. One additional feature is the inclusion of Vietnamese villagers. If you shoot them, a morale indicator lowers. Your game ends whenever your morale drops to zero in any of the sections. This happens by taking too many hits and/or shooting too many villagers.

After finding the trap door in a hut, you enter Section 3, the Tunnel Network. The screen in this section is divided in half, with the left half showing a first-person view, a la Bard's Tale, of the tunnels and the right half showing the map

that you found. You turn left and right and move forward in these tunnels with the left, right and up directions of the joystick. Your movements are duplicated by an arrow on the map. Occasionally, the enemy pops into view and the crosshair that is constantly on the screen must be used to shoot the soldier by placing the crosshair over the man and firing. Unfortunately, you must conserve bullets in these and all remaining sections of the game. This is where the rooms in the tunnels come into play.

In these rooms, you are safe from enemy fire (except in one room) and there are objects that you must examine—similar to the huts. You must find an unblocked exit, two boxes of flares and a compass to escape the tunnels, but there are also extra ammunition and medical supplies to restore your bullets to full potential and remove a hit respectively. It is easier to navigate the tunnels than the jungle. Once you find the rooms you need to visit, subsequent plays of the game will go a lot quicker. I always make it to the exit by the skin of my teeth and with a couple of bullets. You only get two men with which to finish Section 3, so make them count.

Section 4 takes you out of the tunnels and into The Bunker. It is night time and you are being attacked in your bunker by soldiers hiding behind partially obscuring bushes and trees. This section is slightly more difficult than the Village section. You use a crosshair again to aim at the enemy and must conserve flares and bullets. Since the screen is dark, you must fire a flare gun to see your foe. Each flare gun lasts a few seconds, so be very judicious in your use of the night lights. Using the crosshair is very easy. That is because you are supposed to concentrate more on the goal of the section than the interface—a nice thing to see in a game.

Section 5 is the most difficult and highest-paced section of the game. In this section called The Jungle, you see the foliage from a different perspective. You move your man up and down the screen, avoiding obstacles and enemy fire, as well as left and right at the top of the screen to get to a different "square" of the jungle (just like in the arcade game Contra). The compass shows which direction you are facing and a timer counts down 10 hours—how long you have to get to a foxhole before the napalm air strike that is scheduled to hit your area of the jungle. Game play is difficult because there is so much going on at once, but once again joystick controls are fluid.

The final section is called The Foxhole and you must hit the renegade Sergeant Barnes with five grenades to eliminate the traitor so that you can take cover in the foxhole before the napalm strike. You simply must avoid his fire and throw some grenades back at him. The controls are just like in Section 5. You move up and down the screen as well as left and right. After getting in the foxhole, you are given a finale that is worth all of the efforts to finish the game. After finishing **Platoon** once, you will be compelled to try again to get a higher score. The game is definitely addictive.

Platoon is one of the better efforts to be released in a while. The game play is great, with varying areas of difficulty to accommodate all tastes. The game requires well-rounded joystick skills for success and boasts a great soundtrack and lifelike graphics to add that extra "something". Although certain parts may require more practice than others, **Platoon** is neither too hard nor too easy. The only thing that stopped me from trying **Platoon** again was having to write this review. The following of the plot of the movie, inclusion of the morale meter and other elements go along with the attempt at preservation of sanity that was so evident in the motion picture. Ultimately, **Platoon** turns out to be an original arcade game for the home computer that keeps you as enthralled as those quarter-eaters in the shopping malls do.

Name: **Platoon**
Type: Arcade
Formats: C64, IBM, ST
Publisher: Data East
Designers: Ocean Software
Ages: 10 and above
Players: One only
Price: \$29.95 (C64), \$39.95 (IBM),
\$44.95 (ST)

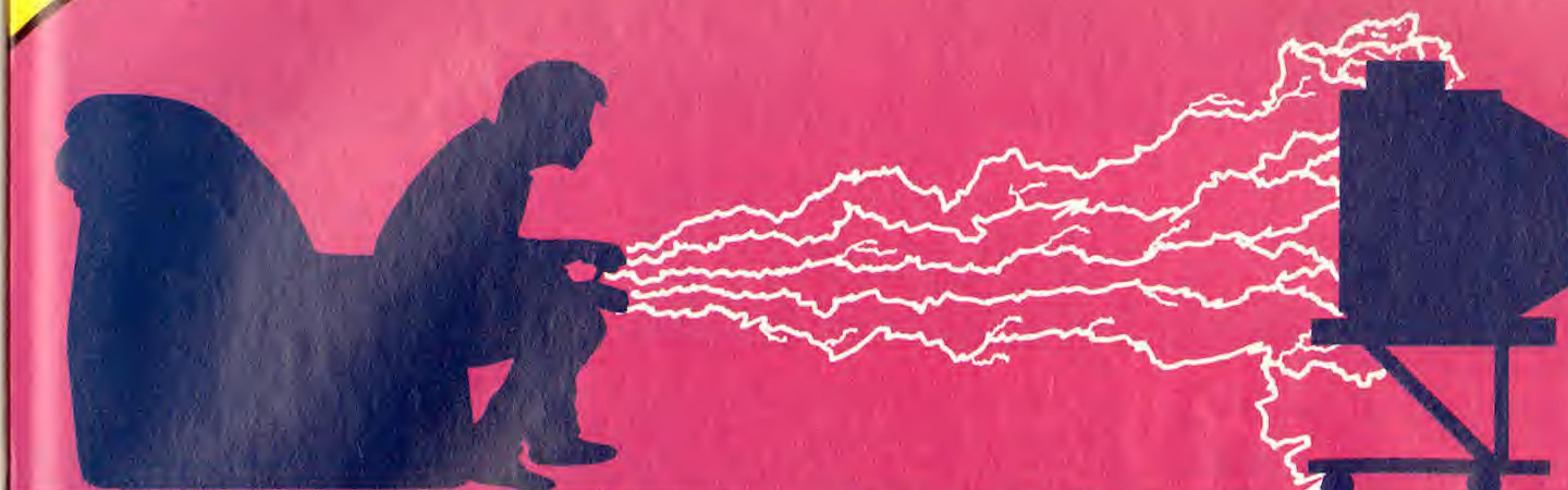
Difficulty:
Packaging:
Documentation:
Graphics/Text:
Playability:
CP Rating:

Intermediate
Average (6)
Average (6)
Excellent (9)
Good (8)

7.75

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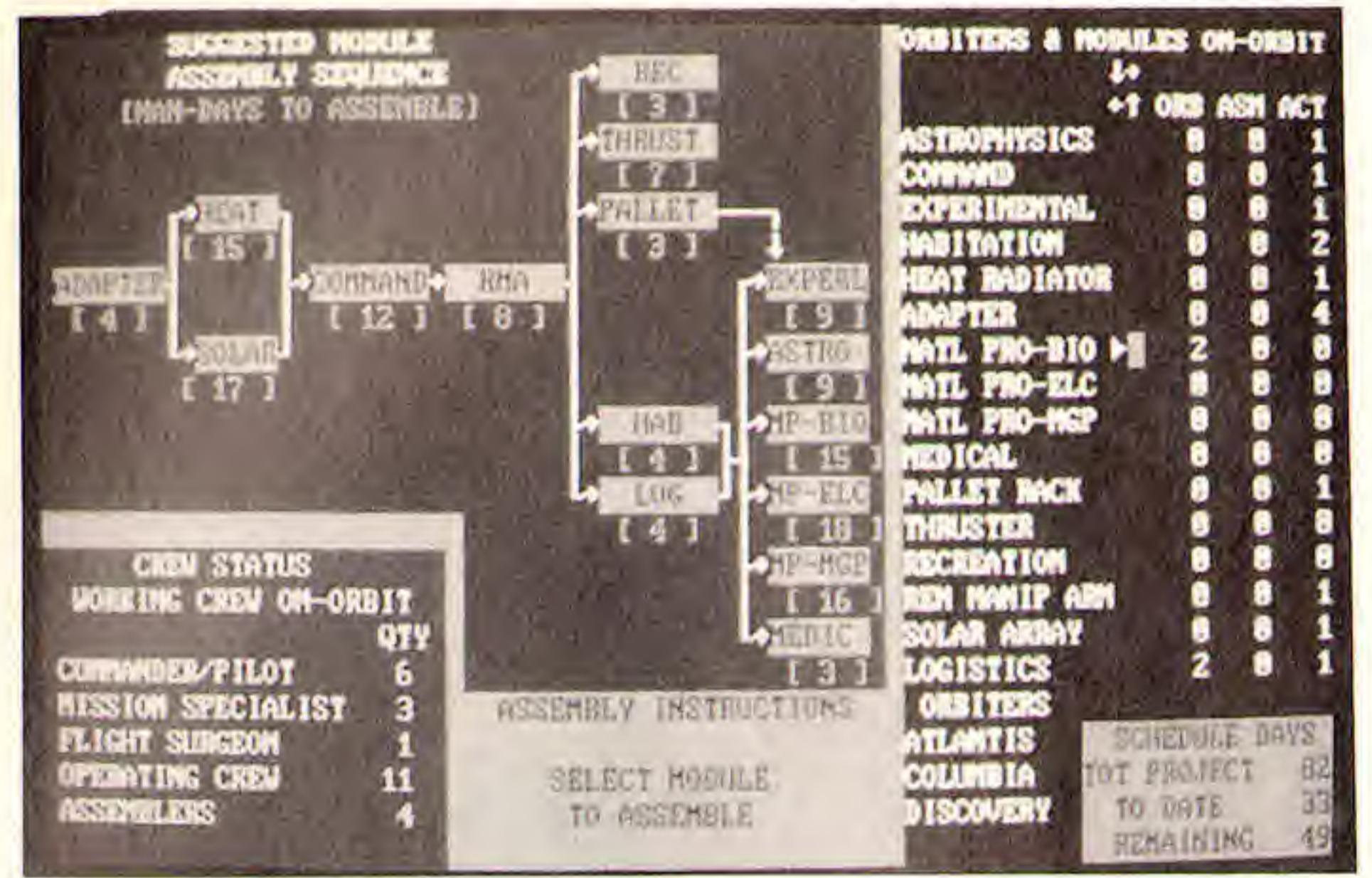
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Get Ready to Work for NASA



By H. Bloom

It won't be long—NASA estimates now that it will be 1995—before the first Space Station will be assembled in low Earth orbit. It will take immense effort and coordination of many skills, plus billions of dollars. Someone has to manage this entire project. Space M*A*X lets you be that person.

The scenario offered in this detailed simulation is that the world's first commercial (not government) Space Station is to be constructed and operated in low Earth orbit. A corporation, Space M*A*X Enterprises, has been formed exclusively for this venture, with funding from many large companies.

Space M*A*X has developed an inventory of Space Station modules for launch, assembly and operation in space. The special products that can only be manufactured with unique processes that depend upon the low vacuum and near weightlessness of space—special medicines, metals, glass, alloys, chemical compounds—have a ready market on Earth, and can be produced for a profit if all goes well.

Your assignment, as Simulator Operator (think of this as Program Manager) is to direct the entire program. This involves launch of the components, assembly and operation of the Space M*A*X Space Station within a defined time schedule and budget. Your resources include Space Shuttles, Heavy-Lift Launch Vehicles, Space Station modules, flight crews, assembly and operating crews, consumables (like food,

water, oxygen, etc.), a project budget, and a fixed number of days to complete the project.

If you are within budget and ahead of schedule, look for a big bonus in your already-good paycheck. You can also participate in profit sharing, if there is any. You can also get fired!

M*A*X, in case you're wondering, stands for (look at the capital letters) Materials processing, Astrophysics, eXperimental.

The Operator's Manual

Your first assignment is to get intimately acquainted with the 138-page Space M*A*X Operator's Manual. This will take some time, since it contains an enormous amount of detail, much of which you will need to intelligently run this simulation. The whole first section of the manual is a short course in shuttle and space station technology at a relatively non-technical level—but comprehensive enough for use as a reference to follow actual space flights in the news.

The 6-3/4" by 9-3/4" bound Manual is beautifully printed, with lots of color and monochrome photos, illustrations and screens, and clearly written text. Actually, I don't recall ever seeing a more impressive software manual.

Anti-Piracy Protection

Space M*A*X is provided on three colored 5-1/4" diskettes—one each of red, blue and black. 3.5" microdiskettes are available for \$3. Although there is no copying protection (making it easy to install Space M*A*X on a hard disk

MODULE ASSEMBLY		MODULE SEQUENCE AND SOURCE	
QUALITY & DAMAGE CONTROL		MODULE: MATE PRO-BIO	
DAY 38		ACTIVATION FREQUENCIES:	
CREW SAFETY & HEALTH	ASSEMBLY ACT	HEALTH (OR ORBITER)	0 2
FLIGHT SURGEON	1	HEALTH (OR CREW)	0 1
SICK	0	COMMAND	0 1
LOCKER	0	HEAT RADIATOR	0 1
TOTAL CREW ON-ORBIT	21	ADAPTER	0 4
OPEN CARGO-HOLDING	7	SOLAR ARRAYS	0 1
OVER CARGO-RELEASING	6	LOGISTICS	0 1
OVER CARGO-SURPLUS	1		
SLEEP COMPARTMENTS	0		
COMPARTMENT(S)	21		
HABITATION MODULE(S)	0		
COMPARTMENT SURPLUS	0		
MEDICAL SLEEP STATIONS	0		
SLEEP STATION SURPLUS	0		
CONSUMABLES	LBS LBS	PERFORMANCE RATING	P23456789E
02/02/90 10:45 ASTRO 425	420 EXP 500	SAFETY/HEALTH	*****
02/03/90 11:00	420 EXP 500	ALTITUDE/INCL	*****
02/04/90 11:15	420 EXP 500	INTEGRATION	*****
02/05/90 11:30	420 EXP 500	CENTER OF MASS	*****
02/06/90 11:45	420 EXP 500	TRAFFIC	*****
02/07/90 12:00	420 EXP 500	POWER/HEAT	*****
02/08/90 12:15	420 EXP 500	CONSUMABLES	*****
02/09/90 12:30	420 EXP 500	SEQUENCE/DAMAGE	*****
02/10/90 12:45	420 EXP 500	OVERALL RATING	*****
5 PARTS	024 EXP 500		

system) you can't use the program unless you have the actual Manual that came with the disks. You are asked three questions, including the color of a randomly selected part of a color photo or illustration in the Manual. Also, a section of the start-up red disk contains the Manual number, and they are compared during the security check.

Tutorial

Space M*A*X is complex. You can't just bumble through it and expect to get very far. However, with a little training you can rapidly get the feel of what's happening. In the latest version of Space M*A*X, Version 2.1, an excellent tutorial is included. While the tutorial doesn't replace the Manual, it will save you considerable time and possible frustration.

The tutorial is available right after you clear the security (anti-piracy) check. You don't get a lot of options, but you can go through selecting modules, launch and assembly in space. A number of very informative text screens lead you through each stage of the operation, and the typical operational screens appear as in the regular program. You even get to use the cursor keys (no joystick in the tutorial) to move and assemble station modules.

The "Real" Thing

After going through the tutorial a few times to get the feel of Space M*A*X, you can start a new project. Here you get to make a lot of choices. You select a level of difficulty, with Level 1

Role-Playing at its Finest

By Cheryl Peterson

QUESTRON II is a fantasy role-playing game in which you explore terrain, fight the various monsters you run into and build up a character capable of meeting the game's final challenge. In the original Questron, with the help of Merson—a powerful wizard (Mantor) and recover the "Book of Magic." In Questron II, you must destroy the evil book by going back in time and preventing Mantor and his henchman from creating it.

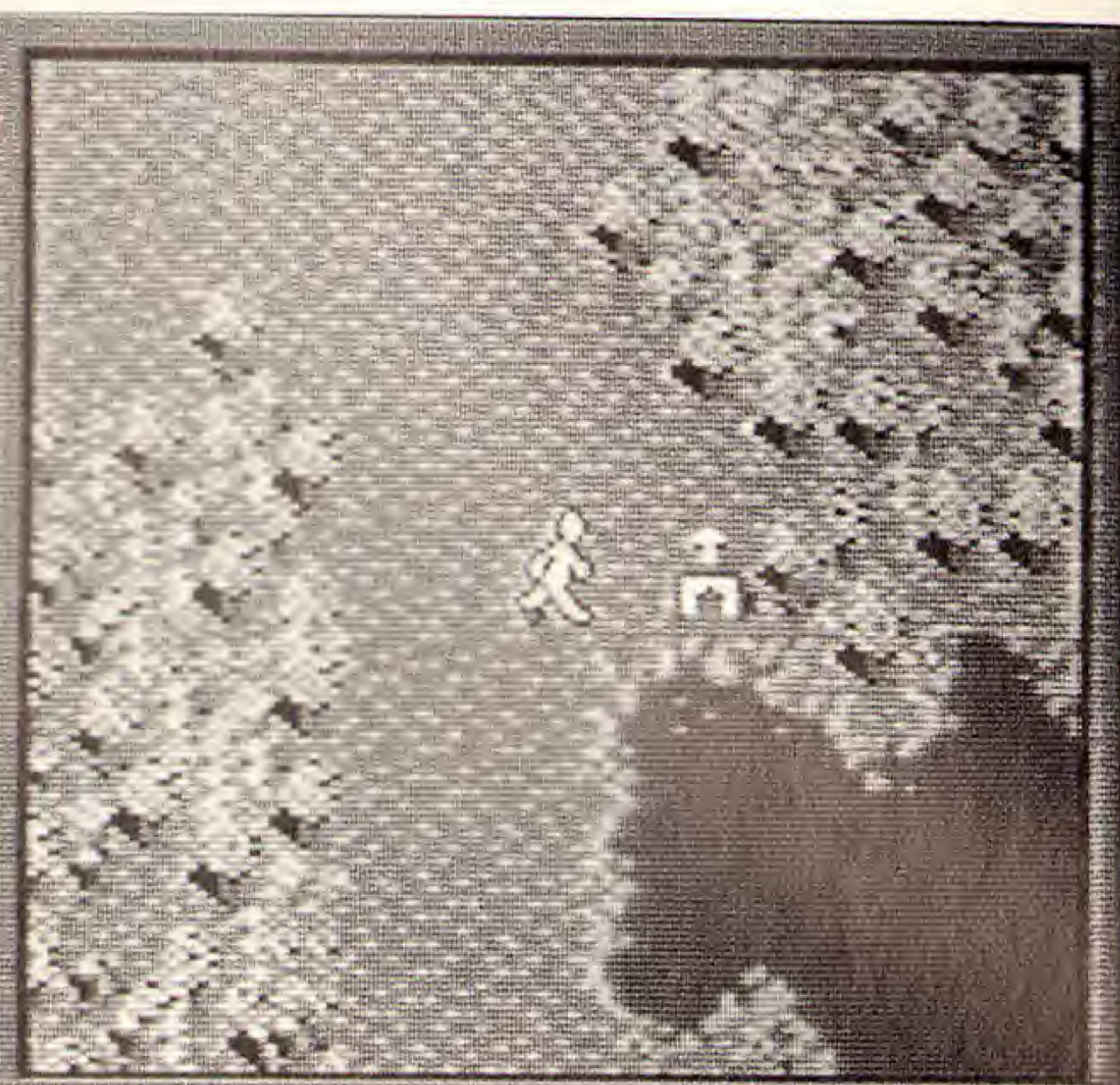
With only the knowledge of your quest and a few hints provided in the manual, you are off to explore the new world to which you have been transported by Mesron's magic. Mesron will help you with the Quest if you can find a way to communicate with him. You must gather information about your quest so you will know how to proceed at each step of the game. The cathedrals, dungeons, tombs and castles you explore contain "keys" to accomplishing the quest. Many items can only be gained by successfully navigating the most dangerous areas of the game. A couple of items can only be had by overcoming a large number of opponents in a short period of time.

Ways exist to improve your characters' statistics making him better able to survive the hazards of the quest. As you defeat opponents you gather gold which can be used to buy better weapons and armor. Not everyone you meet is inimicable to you, though, so you might try talking before fighting.

As your character grows so does the value and usefulness of the items he can buy. Towns are good sources of food, weapons, armor, transportation and other necessities of life, though these items can sometimes be found in other areas. Magic is available to your character, if you can afford the gold needed to buy spells. If you are so inclined you can try your hand at games of chance (my favorite is blackjack) to try to increase your meager gold supply.

If you can find it, there is a source of maps available within the game. Once found, the mapmaker will display complete maps of the surface and the tombs. These maps do not include the dungeon layouts or Mantor's lair. Have something ready to make copies of the maps with, since they can't be repeated at will.

I played the game on two different computer systems: the Commodore 64 and the Amiga. The game was very similar on both machines, though of course the Commodore 64 disk drives were quite a slower. Unlike many game ports this one was not a simple copy to the more advanced machine. Rather the graphics and sounds were substantially improved and took advantage of the marvelous effects that can be accomplished with the Amiga. This takes nothing away from the C-64 version which is very well done within the constraints of that machine. The graphics and sound were great on both machines. The dungeon views took a bit of adjusting to, but that is the way they should work. You actually do get a feeling that you are wandering down endless corridors. The three-dimensional effect is quite nice. Using primitive animation techniques, the monsters actually look like they are moving as they approach you in the Amiga version.



If you find a specific object while exploring the first dungeon, it will create a magic map as you move through the various levels of each dungeon. This makes it much easier to return to the surface once you've found what you need from the dungeon. The map shows a layout of the corridors you explored with arrows indicating where you can go up and down to new levels. Traps and treasure are identified as well. Once a treasure has been taken, its representation disappears from the map. This can be especially useful if you want to leave some treasures to be picked up on your way out. It's a good idea to search for traps each time you enter a new corridor. If they spring on you, the damage is usually heavy.

Since I am one of those people who hates to

make a map as I'm exploring, I thought the easy availability of maps were great! Those who like to make their own maps may be disappointed to have this feature.

The game is not copy protected so you can make backups of both the game and character disks. This makes it much easier to play. If you have several copies of your character disk and make a "fatal" error in your play, you can always go back and restart from the last place where you saved the game.

For those familiar with Richard Garriott's Ultima games the user interface for Questron II will seem very familiar. The command set and scrolling background are almost identical to those used by Ultima I-IV and in the original Questron. Easy to remember one-key commands are used to move your character about and interact with the "characters" in the game. An onscreen help menu refreshes your memory about the commands available. You only need to press the first letter of the command to activate it. If you have a mouse or joystick hitched up to your system you can just point to the command you want to activate it. If you want to repeat the last command you can just hit the "RETURN" key.

Scorecard

Name: Questron II

Type: Fantasy Adventure

Format: C64 and Amiga Formats reviewed; also available on Apple II, Apple IIGS, IBM, Atari ST.

Publisher: Strategic Simulations, Inc. Designers: Charles and John Dougherty; Westwood Associates

Price: \$49.95 for Amiga, Apple IIGS and Atari ST; \$44.95 for Apple II and IBM; \$39.95 for C64

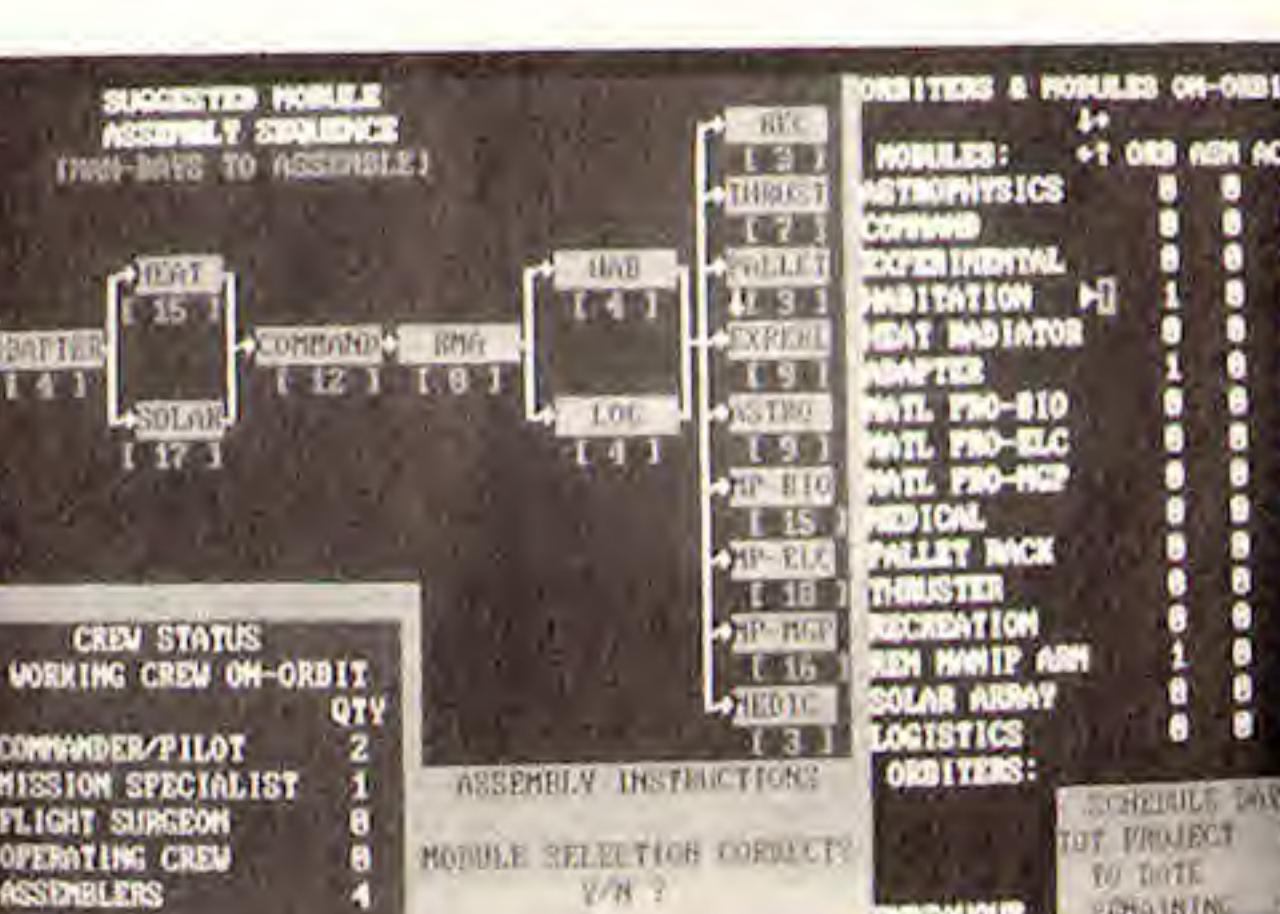
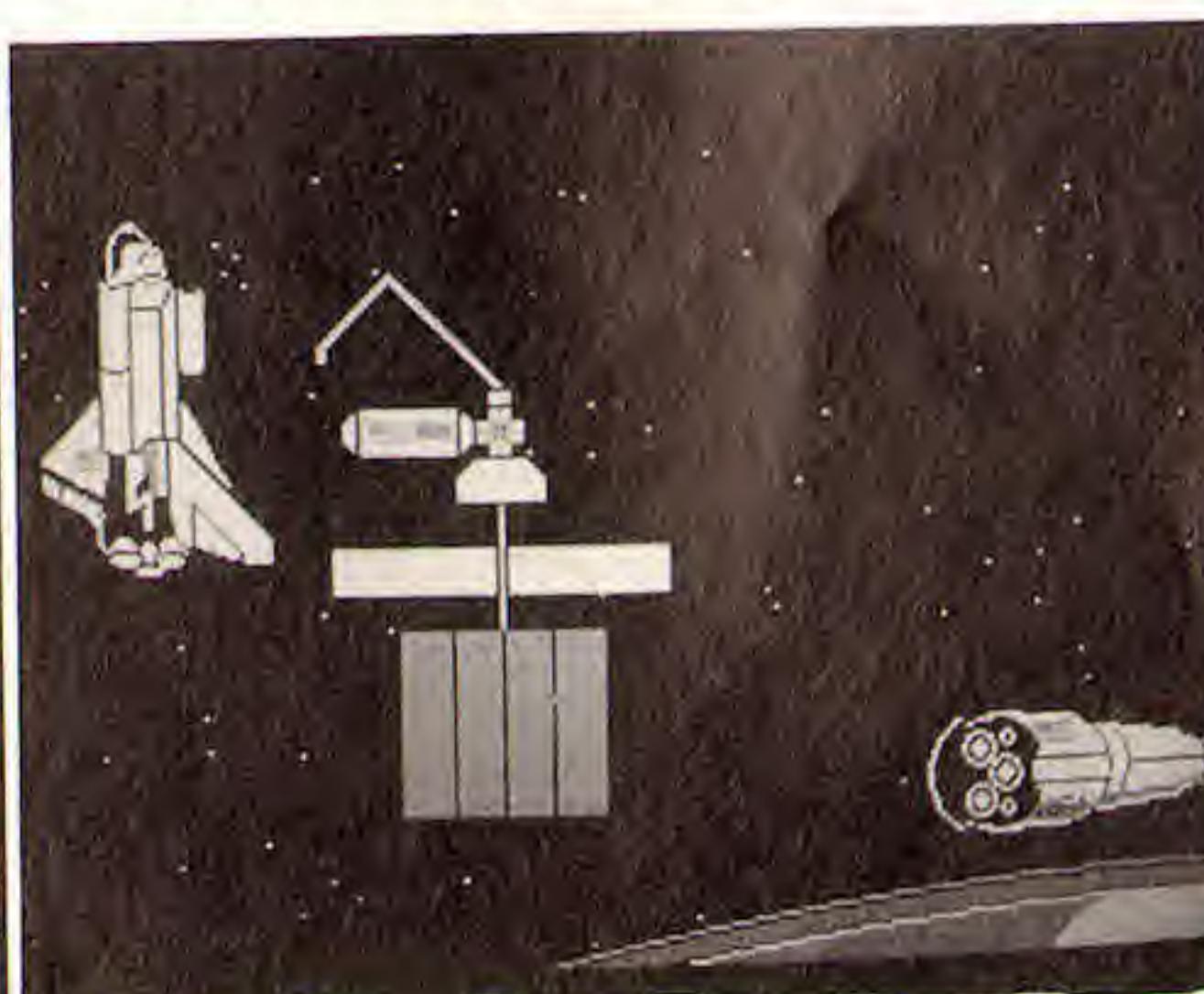
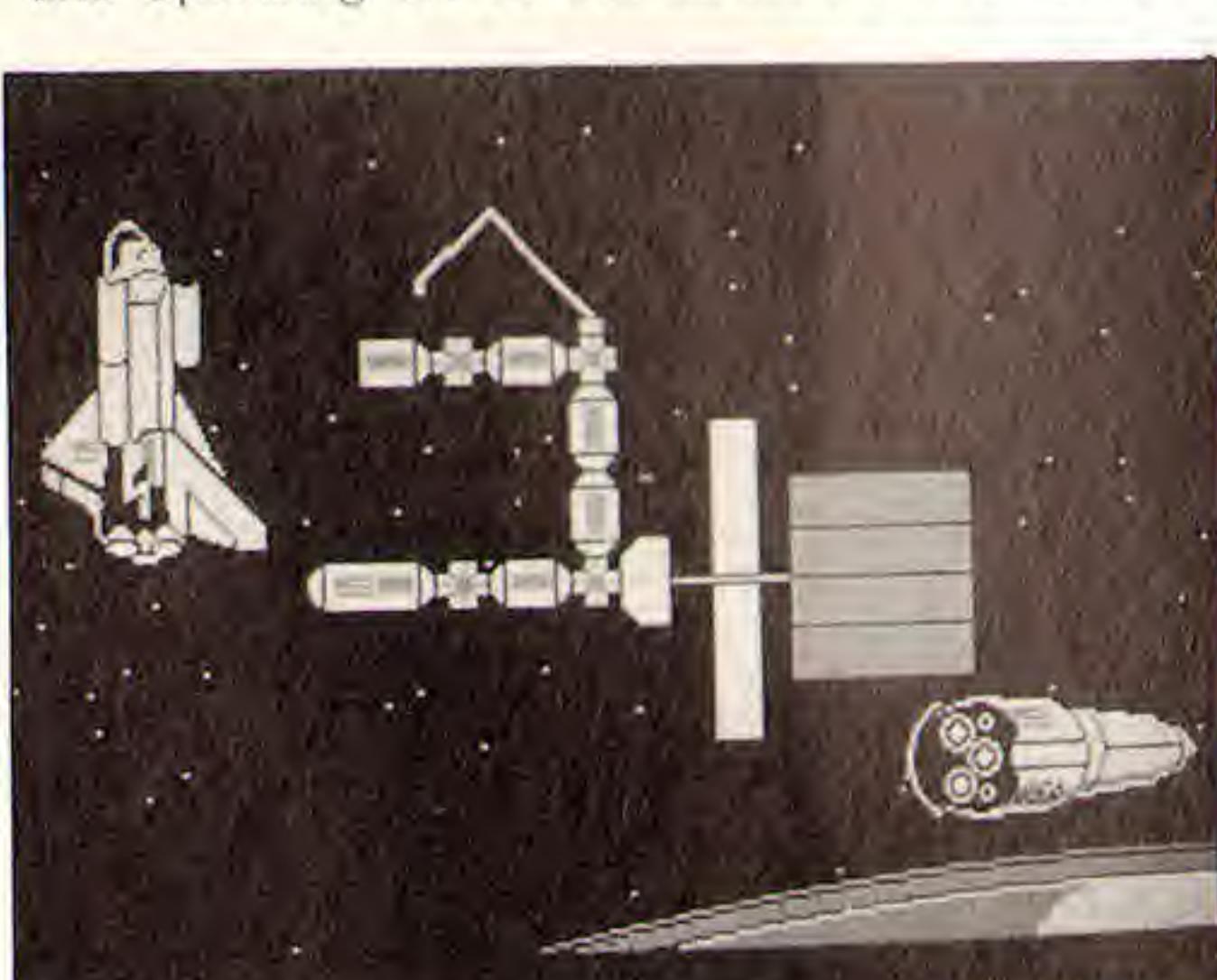
Hardware: Disk drive

Players: One

Ability Level: Intermediate
Packaging: Good (7)
Documentation: Good (8)
Graphics/Text: Good (8)
Playability: Excellent (10)

CP Rating: 8.90

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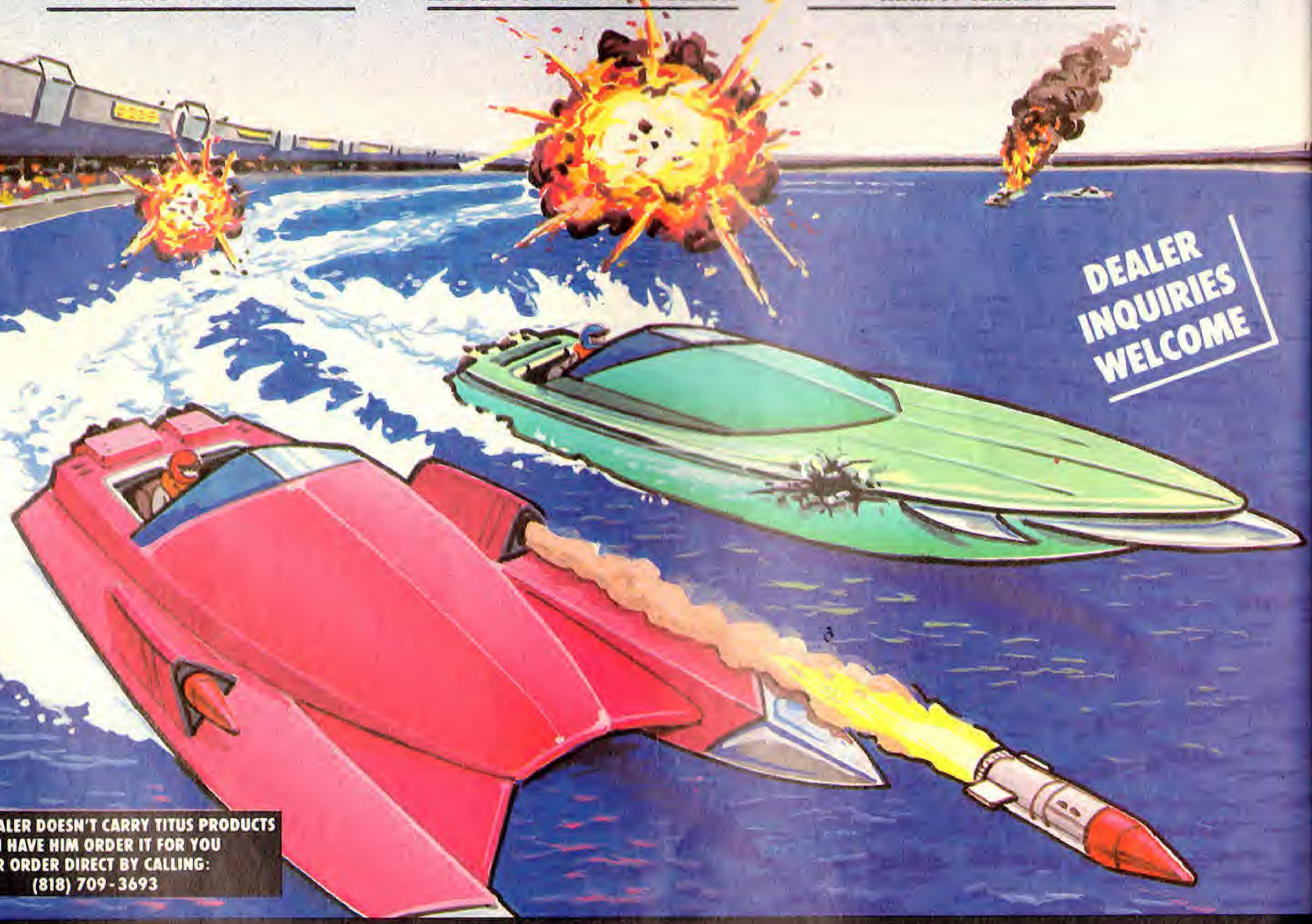
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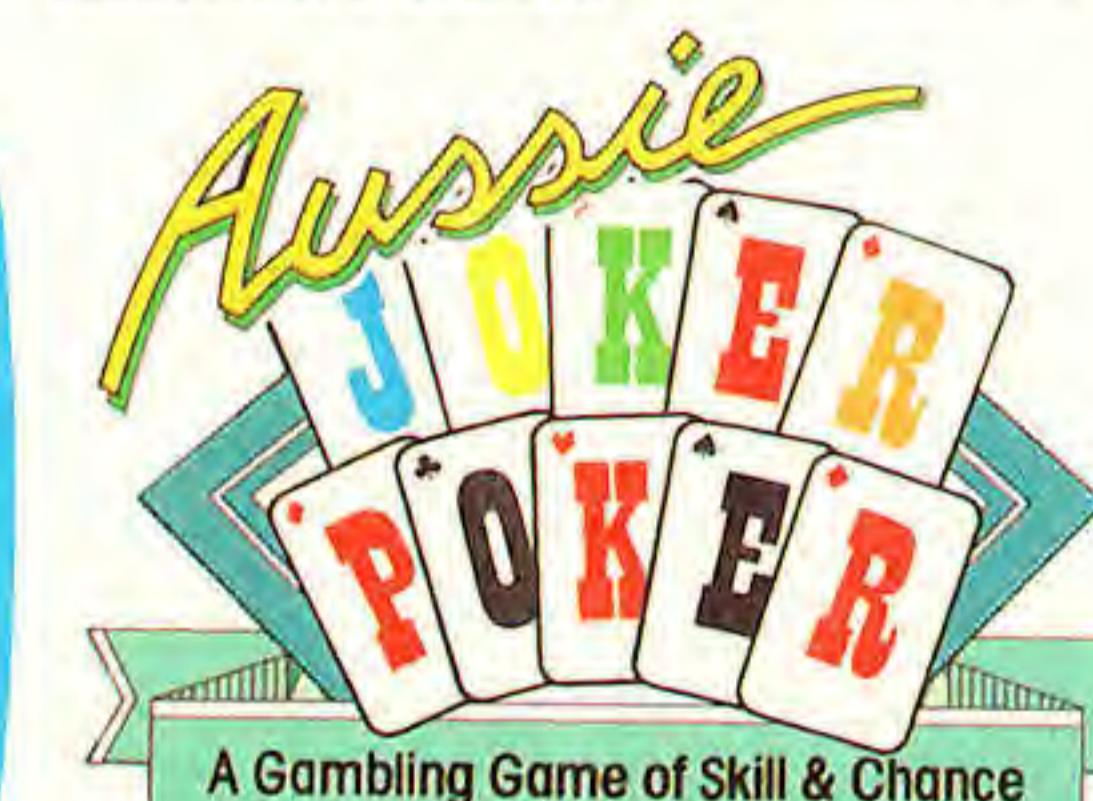
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- Monthly entries must be received no later than the last day of the month in which a drawing will take place in order to participate in the month's drawing. Drawings will be held from December, 1988 through April 1989, inclusive. Final entries must be received by 4/30/89.
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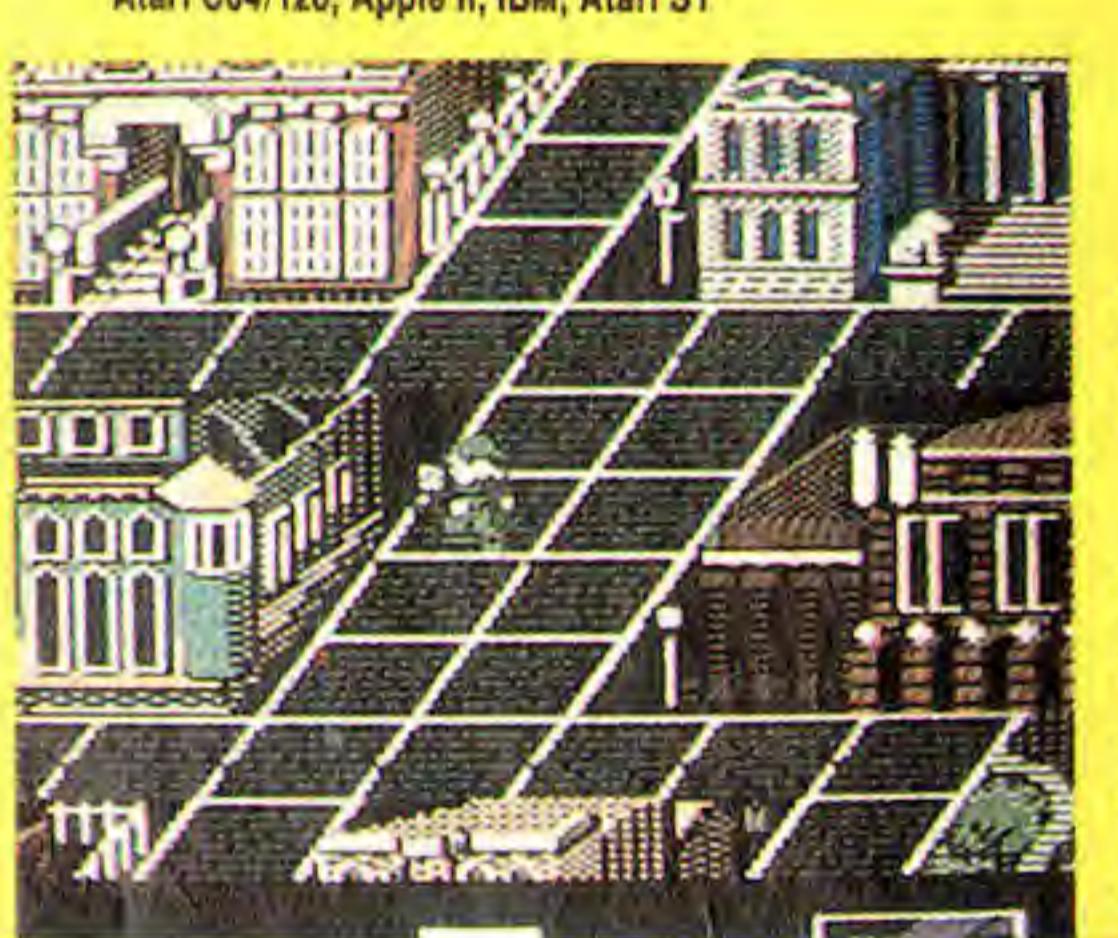


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Become a Zoomer and Get Hooked

By Jeffery Scott Hall

Zoom! from Discovery Software, is an arcade-strategy game like no other on any home computer. After the game has loaded, you will find yourself watching an animation sequence, called the **Zoom!** Land Magic Show, which is as compelling as the game itself. In this show you will be introduced to Zoomer showing off by doing some sensational magic tricks, all while a stereo sound track plays in the background.

WHAT IS ZOOM?

In this game, you assume the role of Zoomer, a cute round ball with feet and eyes, which is controlled by you through a three-dimensional grid. The objective is to move Zoomer around square blocks inside the grid, which will leave a colored trail behind him. Once this trail has been completed on all four sides, the grid will change colors inside the squares that have been completed. You should always try to color at least two or more squares at a time. This will increase the point meter (see below) and give you more points for the squares colored. You will find **Zoom!** to contain a whopping 50 different levels of play, and each one requires a different strategy to complete! I have spent about 40 to 45 hours of play with **Zoom!**, and still have not made it past level seven. The programmers themselves have made it only to level 12. Why? This is due to what the programmer calls the "oops factor", which is what makes **Zoom!** so unique. While you are playing the game, you will find yourself nearing the completion of a level when either an enemy or a black hole pops up to stop you. This is what the programmer refers to as the "oops factor". That is, the events which happen at random throughout the game.

Oh, I almost forgot to mention that Zoomer has enemies which will chase him around the grid, and if caught could prove to be fatal. You will find the ever so common Juggernaut, which is actually a pair of hungry lips out to swallow you whole. The Wormlets are three ugly creatures rolled into one as they squirm their way across the maze erasing the lines that you've completed. Another enemy you will encounter are Spheroids, three giant bouncing balls that try to smash you in hot pursuit. These are just some of the enemies you will find, many more lurk in waiting at different levels of play.

However, no matter what type of enemy you are facing make sure you are always aware of its location. If you lower your guard you might find yourself surrounded, requiring you to forfeit your life. As if this wasn't enough, you will also find Black Holes to appear at random in your maze. These will pop up in the grid at the most inconvenient times, either swallowing you into



an endless void of a horrified death or preventing you from completing the squares.

So, in order for Zoomer to survive, bonus items will pop up within the grid for you to eat. This will give Zoomer an extra ability that he ordinarily doesn't have. Such items include Ice Cubes which freeze the enemy on the spot, Candy that gives you an extra burst of energy for speed. Money Bags containing precious bonus points, Apples coloring in four squares, Rockets blasting you to the next level, Magic Potions that render your enemies harmless, and Glue which slows the enemy down. The last bonus is the ?, giving you unknown powers. When you have eaten a ? in the grid, watch the top of the screen. The ? will change to different patterns representing the various extra abilities available to Zoomer. If you can time it right, you can get an extra life whenever the correct symbol is displayed.

On the far right of the display screen, you will find the game's status which displays the current score and level, number of lives, a point meter, and a magic power meter. The point meter gives you either higher or lower scores depending upon what level the meter is at when you outline a square. If you eat a blue vial in the grid, the magic power meter goes to full. When this happens you will be invincible for a short period of time, so make sure and use this time wisely.

SUMMARY

Zoom! may be played by either one or two players, and team play. In team play you must compete against another player at the same time, racing against each other to see whom can

Scorecard

Name: **ZOOM!**
Type: Arcade-Strategy
Format: Amiga
Publisher: Discovery Software
Designers: Frank Neuhaus, Jochen Wiegelt, Gisela Wiegelt, Thomas Lopatic, and Bob Hires
Ages: 10 and above
Players: One, Two, and Team
Price: \$29.95

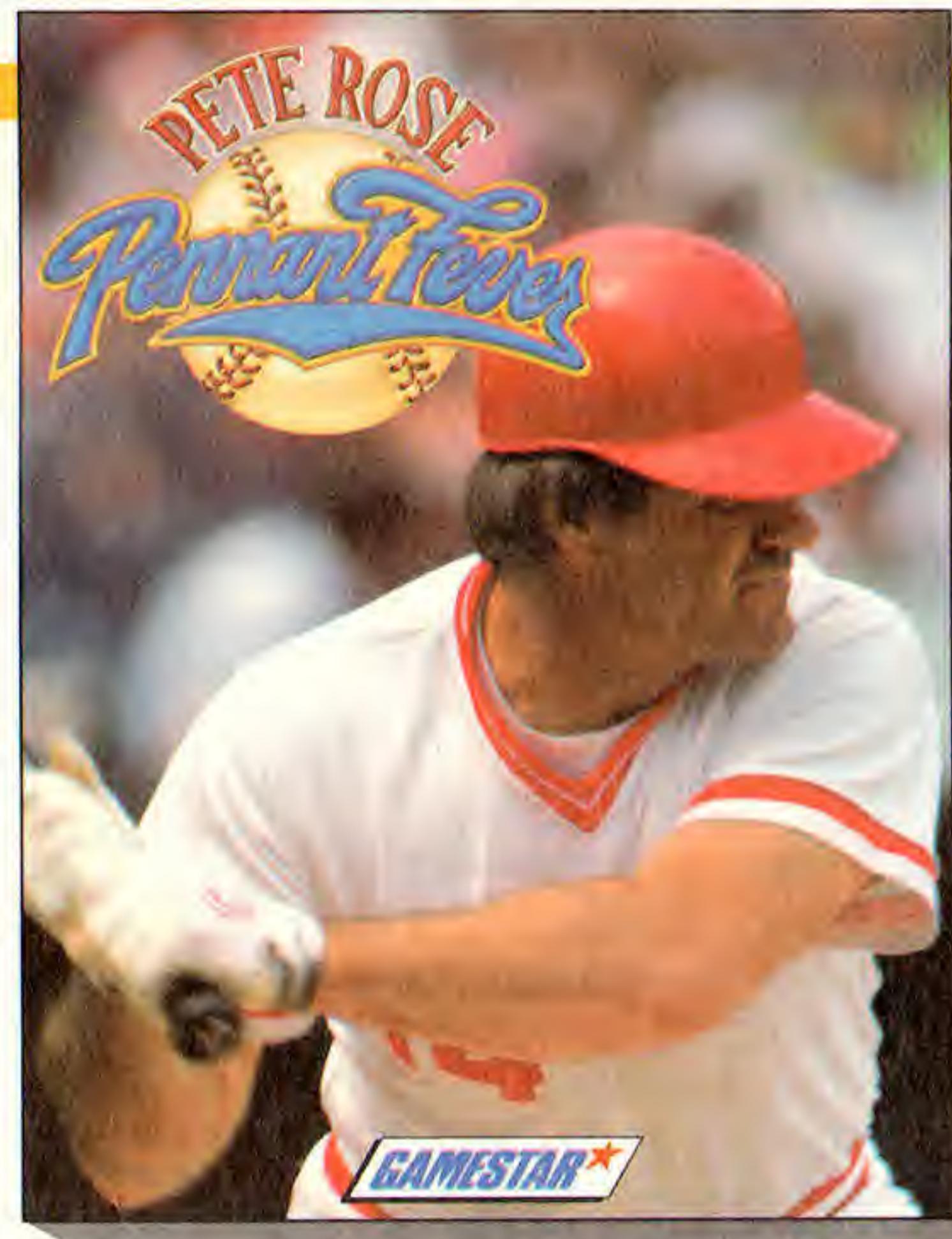
Difficulty:
Packaging:
Documentation:
Graphics/Text:
Realism:
Playability:

Intermediate
Good (8)
Good (8)
Good (8)
Good (8)
Good (8)

CP Rating: 8.00

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YOU'RE IN THE DUGOUT

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It's spikes first when you gotta have the bag—tell 'em Charlie sent ya.

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As GM, you've got 10 seasons to build a dynasty. Draft red-hot rookies and buy expensive free agents. One or two player action give you all the realism of the championship chase.



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REAL LIFE DRAMA

It's happening right now. They're prowling under seas with exotic names: the Laptev Sea, the Kara Sea, the East Siberian Sea and the Sea of Okhotsk. Fantastically quiet, some of these subs are more quiet than the sea itself. And they're jammed packed with electronics so advanced, so secret that even if we knew the whole story, we couldn't tell you.

But by digging through published, unclassified documents, we were able to uncover enough to bring you a generous taste of this secret, ongoing adventure.

You'll be in the 'hot seat' as your patrol is ambushed in the inky waters off Murmansk. You'll feel the tension rise as the enemy torpedoes approach. You'll decide whether to return fire with a Mk 48 torpedo, or to dive deeply, under the thermal layer, to close for a better shot.

And I'll bet you'll feel a lump in your throat as you return from an especially hazardous patrol. Battle weary, but ready to fight another day.

That's the riveting world of the modern submariner. And best of all, you can experience its dangers and thrills from the security of your own home.

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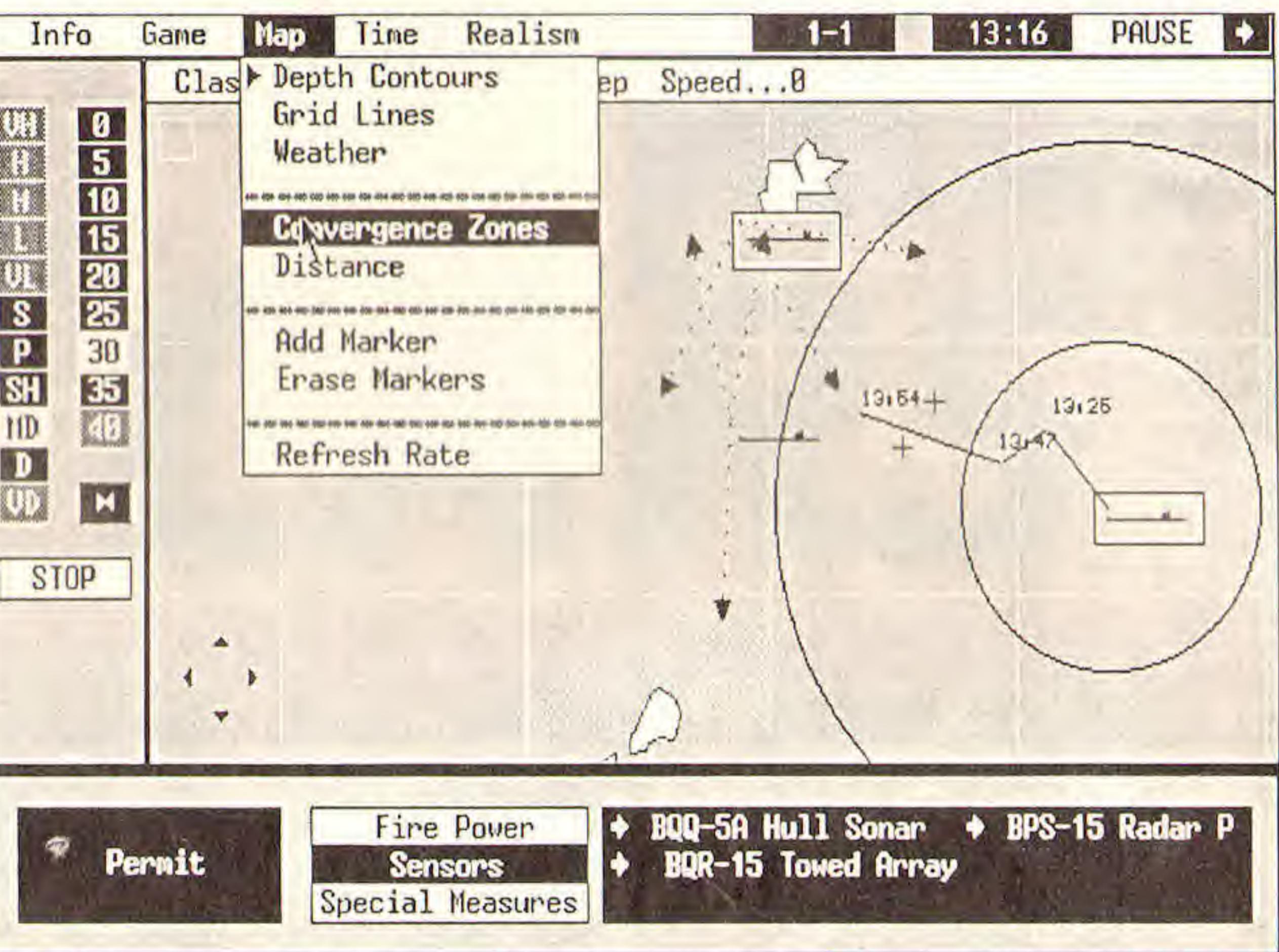
Imagine the ideal computer battle map. It would look good and be easy to read. But it would also be something that you could play with. With *Under the Ice*, the modern naval wargame from Lyric Software Inc., that's just what you get.

You don't just look at this battle map, you interact with it through your mouse or keyboard. Sure, you can scroll by clicking on one of the 4 arrows in the compass rose. But zooming is just as simple. Just point at a section of the map. Click the mouse button or key and zap! It zooms. Want a closer look? How about being able to zoom down 16 levels of magnification?

Lots of map features are optional or can be changed by the player. For example, grid lines are handy on a map, but they need to be programmable. Sometimes you need them 10 miles apart, sometimes 1 mile and sometimes you don't want them at all. All optional map features have the flexibility you'd expect in a means-business software package.

EASY TO PLAY

If you're like me, you like to sit down with a new game and play it, without having to learn a bunch of knuckle-breaking keyboard commands. On the other hand, I like a game with some depth. One that seems



simple at first, but which expands as I play it.

If you have a mouse, you can play *Under the Ice* without ever touching the keyboard.

The sophisticated 'point and click' interface puts all the power of drop-down menus, windows, dialog boxes, on-screen buttons and icons at your disposal. *Under the Ice* runs under Digital Research's GEM graphics system (included). The same system used for many of today's powerful business packages.

If you don't have a mouse, that's no problem. The arrow keys plus the Home and End keys simulate the mouse. Simple, single keystroke shortcuts make it easy to give commands.

BUT IT'S THE SIMULATION

With *Under the Ice* you get the best Submarine Warfare game ever. You get the

subs: Los Angeles, Trafalgar, Sierra, Typhoon and 8 other classes... You get the sensors: BQQ-5 long range hull sonar, BQR-15 towed array sonar... And you get the weapons: Mk48 Torpedoes, Tigerfish, Sea Lance... British, Soviet and US subs, all in full detail.

Key to the game is the sonar simulation. Modeled using the same passive and active sonar equations used in military simulations, it's stunningly realistic. Hide under thermal layers. Detect enemy subs using direct path, bottom bounce or convergence zone sonar paths. If you know anything about submarine warfare, you'll find this simulation fascinating. And even

if you know nothing (like most of us), the 20 page manual will give you an easy to understand introduction to this provocative subject.

But one of our customers said it best. Jim Derryberry of Riverside, CT wrote the "sense of realism of the simulation of sonar and a real feeling of being in command of a sub engaged in a serious struggle. The confusion gives a feeling of excitement."

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Requirements: IBM-PC with 512K, Hercules, CGA, EGA, VGA graphics. Mouse optional. Or Atari ST with color monitor.

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◀ 44

(Management Trainee) the least threatening, though still very comprehensive. You can select space insurance - but the cost comes out of your budget. You can display on the monitor only, or also get daily reports sent to your printer. You can have music play at appropriate times (like the Air Force theme song during launch), and you can disable the launch and landing graphics to save some time. However, the graphics are exceptionally well done and add to the feeling of being there, so you'll certainly want to leave them enabled the first few times you run Space M*A*X.

You also get to choose whether you want the space assembly process to be controlled with a joystick or with the keyboard. I tried three different joysticks. They all worked, but were much more tricky to use than the keyboard. One joystick - a cheap generic - was particularly

◀ 5

- 19) Search all checkered pattern rooms you find!
- 20) Is Sorgigal boring you? Travel with the Leprechaun at 11,3.
- 21) Find the man 10' under Sorgigal at 2,2. He has a mission.
- 22) The Succubus Queen in Portsmith (11,8) doesn't like visitors!
- 23) Find the EIGHTH statue in Sorgigal.

Well, that's about it. I hope my rather lengthy list of hints is of use to you. Thank you for your time and consideration.

Steve A. Shewchuk
British Columbia

Congratulations on your inaugural issue! It's about time someone published a comprehensive magazine dedicated to the computer gamer. I found your reviews to be well written and informative, and I have only two small gripes! First, on your scorecard for POLICE QUEST, page 33, you list the format only as IBM. I know for a fact that it is available also for the Apple IIGS, I've seen it! Second, in your snapshot of DESTROYER, page 56, you state that it is available for the Apple. True enough, but it is also available in the IIGS format. Call me picky, but those of us that own a IIGS are always on the lookout for games that run in the 16-bit mode! Once you've seen the graphics and heard the sound effects you'll know why! The IIGS is an Apple, but it is a far cry from the IIIC or HE. All I ask is that you specify when a game is available in a IIGS specific version. In any case, congratulations again on a superb job! I look forward to seeing Issue No. 2.

Hints for Might & Magic

Might & Magic Players: If you have a fairly high level party and are searching for someplace to raze in treasure and experience take heed. Use whatever means necessary to get to map area B-2, coordinates X-2, Y-1. Facing

jumpy, even though the program provides a joystick calibration routine. Using the joystick is more challenging than the keyboard, so you may prefer it. Using the keyboard is very straightforward.

Once you've made your optional choices, you are in the Mission Control Center. Here you can request various detailed full-screen reports which you can dump to a printer with the SHIFT-PrSc keys. These include a Project Cost Profile, Orbital Operations and Project Revenue Profile, or a variety of financial reports.

You can also load for launch, launch, load for deorbit, deorbit, perform various operations or SAVE your current project for future continuation. With a new project, you have nothing in orbit, so you load for launch.

A Launch Readiness Profile screen (typical of the many 8-color 80-column text screens used with Space M*A*X) lets you select the launch vehicle (shuttle or heavy-lift), which specific modules (from the sixteen types available, staying within load limits), and crew members. If a Logistics Module is being launched, you also get to select the weight of each of the twelve types of consumables.

Once you confirm your choices, you are launched into orbit and the Orbital Operations screen lets you perform various tasks. Normally, you'll want to assemble the modules you just put in orbit. You can also view the Space Station with a beautiful graphics screen that shows the launch vehicles and the current assembly state of the Station orbiting above Earth. You can even see the tiny assembler workers in their space suits hovering around the station. Incredible!

Summary

I'm impressed-I mean, REALLY impressed-with this program. I've never been a Program Manager, but I'll bet if I spent a couple of hundred hours with Space M*A*X, really getting into the details, I could qualify for a high paying management job, not only in aerospace, but in industry.

Anyone presently working in the space industry with any intention of moving up to management should buy Space M*A*X and treat it seriously.

Name: Space M*A*X - Version 2.1
Type: Construction Simulator
Formats: IBM PC/XT/AT/Jr.
Publisher: 2FS Final Frontier Software
Designers: T.L. Keller
Ages: 16 to adult
Requirements: CGA, 192K RAM, 5-1/4" 360K drive
Players: One
Price: \$59.95

Ability Level:	Intermediate-Advanced
Packaging:	Excellent (9)
Documentation:	Excellent (10)
Graphics:	Excellent (9)
Realism:	Excellent (9)
Playability:	Very Good (8)
CP Rating:	9.15

Circle Reader Service Number 24.

CRAZY CARS

DEALER INQUIRIES WELCOME



IBM AND COMPATIBLES VERSION

AMIGA VERSION

ATARI ST VERSION



to the old machines but left the impression that all Atari is dead. The Atari is healthy in Europe. In England, RAINBIRD and PSYGNOSIS both premiere their items on the ST. But no mention of this was included.

Finally, it is virtually an insult that your Reader Response Card does not list the ST as a currently owned computer in Item 1.

It is apparent that a lot of thought and consideration went into preparing CP. I would like to wish you a lot of luck for the future, but it would be much easier if at least a few positive notes and reviews of the ST and its capabilities be included.

One need only look at DUNGEON MASTER by FTL to see why, for many of us, the ST is the computer for the best games!

Rick Fontana
Juneau, Alaska

As you can see from this issue and the past two, the ST is being covered in our pages on a consistent basis.

More Criticism—

After reading the reviews of the computer football games in your October 1988 issue, I was left with a feeling of confusion.

It seems that GFL FOOTBALL was given a much higher rating than JOHN ELWAY'S QUARTERBACK. I found this hard to believe because a friend of mine owns GFL FOOTBALL and when I showed him JOHN ELWAY'S QUARTERBACK, he was amazed. He couldn't imagine how QUARTERBACK could retain the feel and playability of the arcade game on a plain TANDY 1000. What more can you ask for in a football game? It's addicting, realistic, the graphics are exceptional, and it talks!

I don't think it was fair that four different people reviewed the games. That leaves the question of whether the outcome might have been different if the reviewers



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The COMPUTER PLAY SCORECARD

One of the unique features of our magazine is the patented COMPUTER PLAY Scorecard. In order for you to be able to utilize it fully, we will explain the definitions of the various categories and give details on the final CP RATING.

NAME: This is the specific name found on the game package.

TYPE: We will attempt to specify the category of game being reviewed. Choices include ARCADE, ADVENTURE, TEXT, SIMULATION, TRADITIONAL, EDUCATIONAL, CREATIVITY, STRATEGY, and CARTRIDGE.

FORMATS: The currently available formats will be listed. Normally, we will also note the version of the game that was used for the review.

PUBLISHER: The company which created the game.

DISTRIBUTOR: The company that actually sells the game.

DESIGNERS: The individuals who designed the game.

AGES: The suggested age range for which the game is appropriate.

OF PLAYERS: The number of players who can play at one time.

*** THE RATINGS ***

ABILITY LEVEL: Beginner, Intermediate, or Advanced. Our reviewers are instructed to rate this from the viewpoint of the average gamer.

REQUIREMENTS: Specific hardware or memory requirements beyond the minimum computer system for a specific format.

PRICE: The manufacturer's suggested retail price.

GAME RATING SUMMARY

NAME	PUBLISHER	RATING
Dungeon Master	FTL Games	9.65
Solitaire Royale	Spectrum HoloByte	9.50
Superstar Ice Hockey	Mindscape	9.28
ULTIMA V	Origin Systems	9.25
Bard's Tale III	Interplay Products	9.25
Nobunaga's Ambition	Koei	9.15
Where in Europe is Carmen Sandiego?	Broderbund	9.10
Zak McCracken/Alien Mindbenders	Lucasfilm Games	8.90
TV Football	Cinemaware	8.90
PHM Pegasus	Lucasfilm Games	8.85
Flight Simulator 3.0	MicroSoft	8.75
The Three Stooges	Cinemaware	8.75
GFL Football	Gamemaster/Mediacenic	8.72
Hellcat Ace	Microprose	8.60
Death Sword	Palace/Epyx	8.60
GBA Basketball	Gamemaster/Mediacenic	8.52
Tetris	Spectrum HoloByte	8.50
The Games: Winter Edition	Epyx	8.50
Police Quest	Sierra On-Line	8.50
Decisive Battles of the Civil War	SSG	8.40
Shadowgate	Mindscape	8.40
Super Sunday	Avalon Hill	8.40
Jam Session	Broderbund	8.35
Falcon F-16	Spectrum HoloByte	8.30
Project Stealth Fighter	Microprose	8.25
Rommel	SSG	8.20
Tomahawk	DataSoft	8.11
Pete Rose Pennant Fever	Gamemaster/Mediacenic	8.00
Hardball!	Accolade	7.78
Empire	Interstel	7.74
Sons of Liberty	SSI	7.50
John Elway's Quarterback	Melbourne House	7.50
Gunship	Microprose	7.48
World Class Leader Board Golf	Access	7.40
Sporting News Baseball	Epyx	7.35
Ace of Aces	Accolade	7.26
Romance of the Three Kingdoms	Koei	7.16
A.C.E.	Spinnaker/UXB	7.06
Jinxter	Rainbird	6.75
Kid Niki	Data East	6.75
JET	subLogic	6.58
Hunt for Red October	DataSoft	6.47
NFL Challenge	XOR	6.40
Pro Challenge	XOR	6.24
Ebonstar	Microllusions	5.25
VIDEO TITLES		
The Legend of Zelda	Nintendo	9.13
Double Dragon	Tradewest	7.98
RBI Baseball	Tengen	7.68
Contra	Konami	7.63

PACKAGING: Are the materials slick and colorful? Does the package look professional? Are "bonus" items provided to enhance the game experience?

DOCUMENTATION: Are the instructions clear and understandable? Are all game situations covered? Are all necessary player aids or maps provided?

GRAPHICS/TEXT: Are the screen graphics clean and colorful? Do they add to the game? Do the graphics take full advantage of the machine's capabilities? For text games, was the story exciting and imaginative? This category includes sound and animation.

REALISM: This category is for vehicle simulations, war games, and traditional games (such as chess). Does the game faithfully recreate the "look and feel" of the events being simulated? Are the statistics or historical facts correct? Did the game give you a true experience?

PLAYABILITY: The big one. Did the game hold your interest? Did you play for hours or get bored quickly? Did the game draw you into another world? Would you immediately want to show the game to a friend? Did the game break new ground in design? Did you want to play it again the next day?

Despite the fact that there are five categories in the rating process, you will note that a game will never get a truly good rating without getting a good score for playability.

THE NUMBERS

As you will note when reading a SCORECARD, each reviewer rates the game in each category and assigns a text and numerical rating.

A formula is then applied to the various ratings in order to reach the final CP RATING, the reviewer's overall rating of the game.

The percentages for each category are:

PACKAGING — 10%, DOCUMENTATION — 15%, GRAPHICS/TEXT — 25%, REALISM — 25%, and PLAYABILITY — 50%.

Yes, the percentages add up to 125%. This is because some games can only be rated for GRAPHICS but not for REALISM (such as PAC-MAN). Others can be rated for both but one category is more important than another. In these cases the 25% is split. FLIGHT SIMULATOR might be rated 10% for GRAPHICS and 15% for REALISM.

The breakdown in percentages to each category is subjective but represents our best efforts to assign a single rating for every game. We feel that every category is important. The game may be great but cheap packaging may detract from the overall value.

READER INPUT

We give you the ratings for each category. If your own desires are different than ours then you can still work out your own formula. Perhaps you are totally uninterested in packaging. Then you can simply focus on the other category ratings.

YOU CAN'T TELL THE PLAYERS WITHOUT A . . .

The actual space taken up by the scorecards is small but they are an essential part of this magazine. The credibility of our reviewers and the magazine itself rides on the scorecards. We want a casual reader to be able to quickly spot the winners and losers each month. We welcome suggestions on how this process can be improved and standardized. Each issue will contain a summary of all ratings from previous issues.

Future shocker!

Smash hit on the Mac!
Now available in color on the IBM!

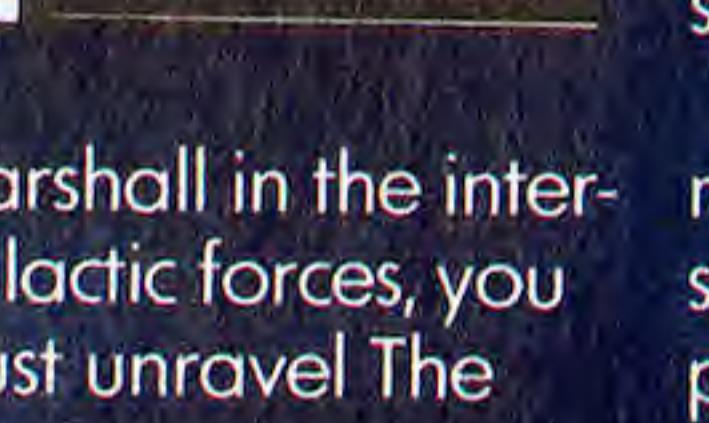
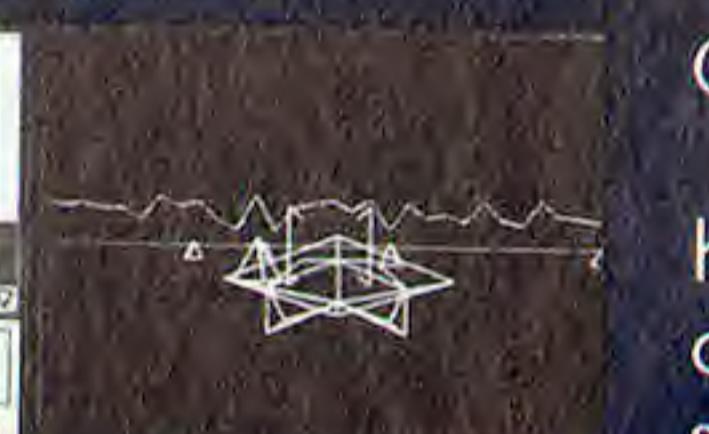
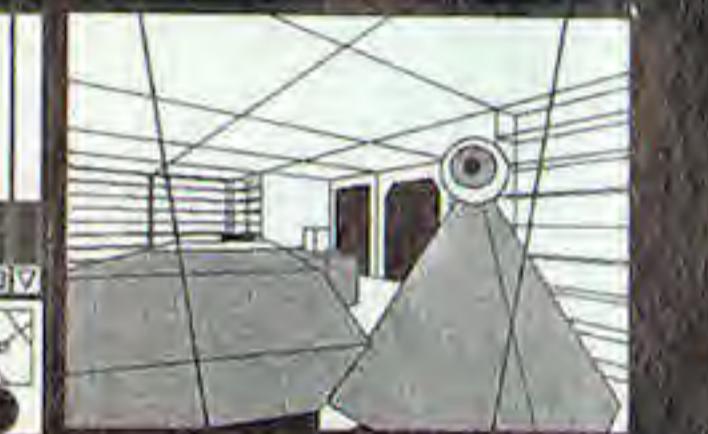


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world to explore.

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As Regional



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What is the meaning of the strange prism-shaped pods?

What is the origin of the endless army of hostile aliens that you must blow away with Power Armor technology?

And how are you going to get any survivors and yourself the hell out of here?

Good questions. If you've got answers, don't let anything in this world keep you from The Colony.

M I N D S C A P E

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Other Ports

The World of Graphics



An example of Studio 8's precision graphics.

By Rusel DeMaria

Well, not a whole lot of new games came out for the Macintosh or the Atari ST this month, but a couple of game publishers came out with high-end graphics programs for the Mac II. I thought it might be worth a look at what Mediagenic and Electronic Arts have offered us. Even if you don't have a Mac II, or even a Mac, **Photon Paint** and **Studio 8** are examples of what is coming in graphics on computers with high resolution color screens.

Both of these programs include features that you might not have dreamed of having, features that combine elements of other types of programs.

Before going on about these programs, however, I would like to introduce a few concepts about graphic programs in general, and Mac programs specifically.

There are basically three types of programs --paint, draw, and CAD, though the distinctions between them sometimes become blurred. Basically, paint programs use bit mapped images --images that are drawn pixel by pixel. In contrast, draw and CAD systems use object oriented graphics, which means that each separate component of a picture is a separate object and can be manipulated independently.

There are several fine programs for the Mac --serious programs with serious price tags -- that allow you to perform every level of paint, draw, or CAD. For instance, **Pixel Paint** is already a very fine paint program from SuperMac. Claris' **MacDraw II** is a very good drawing program

with some measurement and other features associated with CAD systems. Aldus' **Freehand** and Adobe **Illustrator 88** are programs that combine some aspects of draw and paint programs, while **VersaCAD** and **MGMStation** are full featured CAD programs designed to be used by architects, engineers, and other technical artists.

So where does that place **Photon Paint** and **Studio 8**? Basically, like **Pixel Paint**, these are high-end paint programs that use bit mapped graphics and Color QuickDraw to raise the artistry of graphic production on the Mac. Though they don't have the object oriented aspects of draw packages, images created with these programs can be saved to standard formats or even copied and pasted through the Clipboard.



Photon Paint offers some interesting effects. Besides the basic paint tools, you can create and use color patterns on the fly, take selected sections of a drawing and wrap them around predefined or freehand three dimensional shapes (like cones, spheres, and cubes). You can use luminosity effects to simulate light sources, copy and paste objects in a translucent Blend mode, modify the color palette in a variety of ways, and manipulate selections from a painting in many other ways. My only immediate complaint about **Photon Paint** is the lack of a method for dragging selected portions of a painting. The way to move a painted object is to select it, then cut (or copy) it, then paste it where you want it. One very good feature is the paint roller tool which lets you selectively and repeatedly reproduce the contents of the Clipboard onto your drawing wherever you want them.

I'm told that, even though the version of **Photon Paint** was supposed to be a release version, Microllusions has decided to add more than thirty new features before officially releasing this product. So there's more to come.

On the other hand, **Studio 8** is both powerful and easy to use, and I prefer its interface



somewhat. For instance, it is easier to move selections, plus there are several more sophisticated options for controlling the way a section becomes selected, including the ability to pre-define colors for exclusion from the selection. This can result in some amazing effects, like creating stencils which eliminate only the objects within a solid background, leaving spaces where they were.

Also, **Studio 8** comes with a superior manual and on-line help. Currently, the manual for **Photon Paint** is somewhat sketchy and contains no graphics to illustrate the more complex techniques, and there is no on-line help.

Studio 8 is loaded with features and subtle

► 58

Anyone interested in serious graphic arts on the Mac should take a look at these programs. They are truly amazing, and can produce very high quality results.

On the entertainment side, I received a great game this past month. It's called **Arkanoid**, and it's from Discovery Software. This game, based on the Taito coin-op hit game, is a breakout lover's delight. It takes you through a series of ever more challenging breakout scenes accompanied by bell-like sounds as the ball hits the bricks. There are essentially four types of bricks -- one-hit bricks which disappear with one hit, multiple hit bricks which may take several hits, indestructible bricks which simply get in the way, and, finally, special bricks which, when struck, release the special powers capsules. These may make your paddle bigger, make the ball move slower, or even turn your paddle into a laser shooting weapon. Whatever the effect, you need only capture the capsule with the paddle to gain the power, though getting a new power capsule generally replaces the former.

One of my favorite capsules splits the ball into three, which leads to some wild games. **Arkanoid** is a magnificent game if you like breakout, which obviously I do. It's one of those games you can play over and over, and if you get a little too confident, you can try to play it as a Jedi master. You'll have to have Jedi reflexes if you do, though.

Discovery has also released **Better Dead Than Alien** for the Atari ST. This program is an updated version of **Space Invaders** with better graphics, more control, and optional "capsules" which can enhance your power. You can play in one- or two-player mode, and one of the attack waves is more like a game of **Astrooids** so you can really get two games in one if you are a fan of both those classics. On the other hand, this game is far more interesting than the original **Space Invaders**, and can lead to good challenges. The graphics are great and so are the sounds.

My wife's current favorite saying is "They don't call it a deadline for nothing," and on that somber note, I'll say, "See you next time."

abilities. A mask feature lets you prevent painting on specific colors, for instance, so, among other uses, doing delicate touch ups you can prevent accidental drawing on finished areas by masking their colors. One of my favorite features is the document preview which lets you see a reduced image of a picture before you load it. **Pixel Paint** has a similar feature, but it is slow by comparison with Studio 8's version which is almost instantaneous.

You can mix blend colors, use tints to overlay pictures, select and copy or move areas, use an eyedropper tool to capture a color, create dif-

ferent gradient effects, even use a watercolor brush to achieve the "wet look." Other features let you rotate, twist, and otherwise reshape selection. One option lets you draw a figure with handles that allow you to push and pull it into a different shape -- a feature normally found only on draw programs. There is even a perspective

option that lets you place a selected area in perspective with lots of ways to control the perspective itself.

Studio 8 includes some very good tutorial lessons on how to use advanced features, and really opens up the possibilities of painting on a computer.

The Epyx 500XJ™ is no ordinary joystick. It's a lethal weapon. The 500XJ scores way higher, faster and easier than any other joystick ever made. Which isn't too surprising, considering what cool stuff it has.

With a joystick that scores this high, this easy, there ought to be a law. Aren't you glad there isn't?

The 500XJ.
Guaranteed to blow 'em away.

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MAY BE FATAL
TO YOUR
COMPETITION.**



AVAILABLE FOR APPLE, IBM, AMIGA, COMMODORE, ATARI, NINTENDO AND SEGA.

Circle Reader Service Number 26.

COMPUTER PLAY

"BEST OF THE YEAR" AWARDS

Do You Have an Opinion of What the Best Games of 1988 Are?

Then Vote Now for the Games of Your Choice!

Here's how it works: The games listed on our ballot below have been nominated by our editorial staff. Circle the game of your choice, or write in your own choice in the space provided in each category, and mail in your ballot today. Do it today so you don't miss out on a chance to WIN!

That's right. All ballots received by December 31, 1988 will be entered in a drawing and 10 lucky winners will each receive a copy of each game voted as one of the best of 1988. That's quite a prize and all you have to do is enter. No purchase is necessary so you can send in your choices on a 5"x 7" white piece of paper if you wish. Also, 25 other lucky winners will each receive a year's free subscription to COMPUTER PLAY. So don't wait.

Mail in your ballot today.

Remember, all ballots must be received by December 31, 1988.

OFFICIAL BALLOT

Circle or Write in the game of Your Choice.

Adventure Games

- A. Text
 - 1. Sherlock Holmes
 - 2. Nord and Bert
 - 3. _____

Role Playing Games

- 1. Bard's Tale III
- 2. Ultima V
- 3. Questron II
- 4. Autoduel
- 5. Phantasie III
- 6. _____

Simulations

- A. Sports
 - 1. The Games: Summer Edition
 - 2. Jordan vs Bird
 - 3. Sporting News Basketball
 - 4. John Elway's Quarterback
 - 5. Superstar Hockey
 - 6. _____

Strategy Games

- 1. Empire
- 2. Battle Chess
- 3. Global Commander
- 4. Typhoon of Steel
- 5. Romance of the 3 Kingdoms
- 6. _____

Arcade Games

- 1. Arkanoid
- 2. Zoom!
- 3. Tetris
- 4. Awesome Arcade Action
- 5. Platoon
- 6. _____

Flight Simulators

- 1. MicroSoft 3.0
- 2. Falcon F-16
- 3. F-16 Strike Eagle
- 4. Gunship
- 5. JET
- 6. _____

Best PC Game

- 1. 4x4 Offroad Racing
- 2. Nobunaga's Ambition
- 3. Battlehawks 1942
- 4. Rommel
- 5. Jordan vs Bird
- 6. _____

Most Creative Game

- 1. Final Assault
- 2. Dark Castle
- 3. Manhole
- 4. _____

Best Graphics

- 1. Battlehawks 1942
- 2. Falcon F-16 AT
- 3. Manhole
- 4. _____

Best Sound

- 1. Rocket Ranger
- 2. Obliterator
- 3. Crystal Quest
- 4. _____

Best Atari ST Game

- 1. Final Assault
- 2. Dungeon Master
- 3. Starglider II
- 4. _____

Game of the Year

- 1. Zoom!
- 2. Rocket Ranger
- 3. Nobunaga's Ambition
- 4. Red Storm Rising
- 5. Dungeon Master
- 6. _____

Best Apple II, IIGS Games

- 1. Pirates
- 2. Zany Golf
- 3. Questron II
- 4. _____

Best Mac Game

- 1. Arkanoid
- 2. MacGolf Classic
- 3. Solitaire Royale
- 4. _____

Mail to:

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54

had reviewed different games than they did. It is obvious that some of the reviewers were more easily pleased than others. This will cause some readers to be misled. I don't think that the reviews of the football games draw any valid conclusions. It would be a shame if someone took the advice of the reviewers and bought one of the games without trying QUARTERBACK first. Another thing, your review has the price of QUARTERBACK at \$44.95. I got my copy at a bookstore for about \$30. It is this kind of misleading information that will stop me from buying a copy of your magazine in the future. Steven J. Clement Belpre, OH

Another Subscriber—

I was impressed with the quality of your new magazine and have decided to buy a subscription. Enclosed you will find a money order for \$19.97. Please start my subscription with the September issue.

I've been playing computer games since the first home machine (PONG) was released. I've collected every system I could get my hands on (Atari 2600 & 5200, Intellivision, Coleco, Nintendo, Sega, C-64 and Amiga 500) and have over 500 game titles in my library. Unfortunately, 5 to 10% of those are junk and so I can really appreciate the objectivity in your reviews. There's nothing more infuriating than plunking down \$40 dollars for a bad game.

Keep up the good work and I look forward to the next issue of COMPUTER PLAY.

Tomm Munro
Federal Way, WA

Satisfied Reader—

I was rummaging through the computer magazines in a local grocery store last week and noticed one that was unlike the others. It had to be the title that grabbed me; COMPUTER PLAY. I couldn't believe it. A magazine that finally had a theme of leisure instead of business. The color of the cover and catchy art was also appealing to me. I picked it up and started flipping through it. It was great! Every page was full of entertainment software. There were games of all kinds: Adventure, fantasy, role playing, arcade, strategy, etc. They were all there. I'm glad you came around, because frankly I was sick and tired of thumbing through hundreds of pages of a business pc-magazine I subscribe to and finding only a few pages devoted to entertainment software. I was not even looking at your magazine for a minute and already I wanted a subscription. After purchasing your first issue of CP, I sat down in a comfortable chair and read from cover to cover. I loved how you rated the newly released games with the "scorecard" and showed what the screens looked like.

Thank you, and good luck with CP...it's truly the best magazine I've ever read!

Brian Evans
Jaffrey, NH

More on Elway—

I am writing on behalf of all the "armchair quarterbacks" in the world (or, at least, southern California) who participate either by watching our favorite team on TV or by (in my case) playing computer football.

First, let me tell you how excited I was to pick up the October issue of Computer Play and discover that you were reviewing football game products. Being an avid sports fan(atic), I was practically foaming at the mouth to tear into these reviews and see which games were worth a trip to my local software store to purchase.

However, subsequent to these reviews, and after per-

sonally testing the game (except TV Sports Football, which was not yet available) and reevaluating the reviews, I have come to the conclusion that you have been "sacked for a loss".

After reading the reviews a second time, I noticed that each product had a different reviewer. With what, then, did they base their comparison? On a scale of 1 to 10 (10 being the best), a program was rated on graphics, realism, playability, etc. Since a reviewer only rated that one particular game, how could he/she rate a game's graphics 7 or 8 when there was nothing to compare it against. That reviewer's taste for "the ultimate graphics" may have been impossible to satisfy. The same can be said for realism, playability, etc.

I own a copy of all games reviewed (except for TV Football), and my personal choice for top football game is John Elway's Quarterback. Unlike your reviewers, I have tested almost all football games. Of course, this is only my opinion. I was a quarterback in school football. I also played quarterback for the Army football team. J.E. Quarterback allows me (and my thrice operated on knees) to once again "throw the bomb", or "run the keeper". I spend hours almost every night playing this game. I haven't touched the other football games much since I bought John Elway's Quarterback. (And, no, I do not work for Melbourne House, nor am I affiliated with them in any way).

In closing, I would like you to consider the following points:

- (1) Although many games are purchased on a whim, even more are purchased through recommendations from friends, or from reviews in magazines such as yours.
- (2) If I were to review a game, I would need some basis for comparison, so that I could present the fairest review possible. (For example, assume game A is rated 10 for graphics, realism, or playability, etc. All other games could be rated against this "standard").
- (3) In the future, allow reviewers to test at least 3-4 similar products, and base their judgement on that comparison.

Again, you have a great magazine, and I look forward to the reviews of other fine products.

Chuck Boerner
Fountain Valley, CA

Computer Play Online

Computer Play Magazine is now online with:

CompuServe

Current Articles
are featured in

The Electronic Gamer

(type Go TEG) and look for

COMPUTER PLAY ONLINE!

If you have any questions, hints or tips, or just want to leave a note by Email, our access number is 76702,253. We would love to hear from You!!! Check with the TEG column for our monthly updates and interesting articles!!

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SMART LUCK
COMPUTER SYSTEMS

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Circle Reader Service Number 27.

Snapshots

By Daniel Carr



EAT MY DUST!

Georgia Mud Fest, The Michigan Winter Wreck-Off, Death Valley Trek or Baja Challenge are the tracks for you to race on in 4 BY 4 OFF-ROAD RACING. Get ready by choosing your truck, customizing it and then stocking it with the right tools and parts. A little food and water wouldn't hurt either. Tear into sand dunes, slop through mud holes and skim along ice in four races with a variety of terrain and obstacles. You can race against several opponents including the Demon Truck. C64, IBM, Epyx. Circle Reader Service Number 2.

ROLL THEM BONES

Be a high roller with STRATEGIC CRAPS and rake in the bucks. In the "Play" mode, the actual casino game is simulated with you making bets, rolling the dice, and seeing the pay-off. The program will then explain the wins and losses on every roll. You can bet manually or use the auto key-stroke. In the "Strategy" mode, you can analyze betting strategies with 32,500 rolls of the dice. The program will provide statistics such as house/player advantage, bets made, money bet and distribution of numbers rolled. IBM, Apple family, Mac. APPLICATIONS PLUS INC. Circle Reader Service Number 1.



FUN IN THE SANTA MONICA BAY

In TOWER TOPPLER The planet Nebulus has a problem: eight very dangerous looking towers have risen from the deep. Destrukt Inc. isn't taking any chances so they're sending you to knock them down. To get to the towers you will have to travel through the toxic waters in your MK 7 Mini-Sub, climb the slippery slides which rotate in 3-D and set your charges at the summits. Badges along the way up include falling boulders, tunnels, naturally mutant molecules, viscous or vicious robots and various species of cannon balls. Once a tower is blasted, jump in your sub and head for the next one. Each tower is different with scoring based on your time and screw-ups. C64, with Amiga, Atari ST, Apple II series. Epyx. Circle Reader Service Number 3.



ALLY OOP!

THE GAMES, SUMMER EDITION is the official computer game of 1988 U.S. Olympic Team. One to eight players can each represent one of 24 countries. The events include uneven parallel bars, rings, pole vault, hurdles, hammer throw, diving, archery and cycling. The program features three-dimensional scrolling and effects with all graphic modes (IBM) supported. A slowplay option allows a player to analyze his routine and Diamond Vision (TM) gives an on screen replay of performance and score. C64, IBM, Epyx. Circle Reader Service Number 5.



G.I. JOE

Become an AIRBORNE RANGER and fight your way through four different missions in desert, Arctic and temperate areas. You start out with an M-16, grenades, plastic explosives and LAW rockets. With the IBM version you can edit the equipment and supply mix to take along on your mission. Once loaded, fly over the enemy territory and drop three resupply pods and then parachute out. Bad guys include guards, scouts, bunkers and machine gun nests. Time and limited resources force you to fight hard and fast. IBM. MICROPROSE. Circle Reader Service Number 6.



WRAP IT GOOD

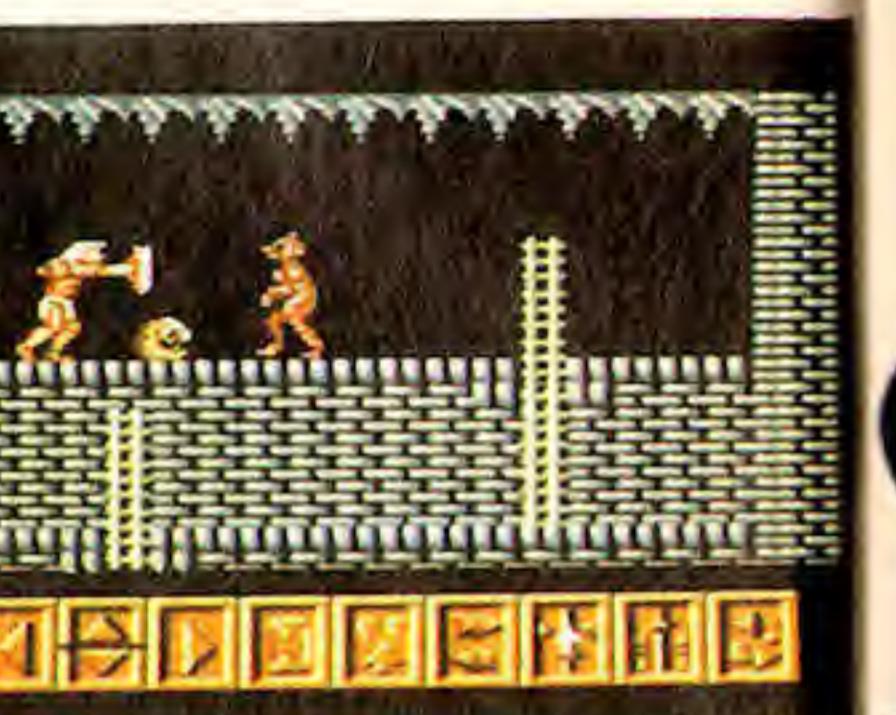
Go from battling tanks and aircraft in Skyfox to blowing up starbases, asteroids and space fighters in SKYFOX II: THE CYGNUS CONFLICT. It seems those nasty Xenomorphs are planning to take over the whole constellation of Cygnus so the Feddys are sending you in the Skyfox II warfighter to stop the invasion. Weaponry includes photon pulse bombs, anti-matter mines and neutron disrupters. Defend with shields and the deceptor device. Navigate with your scanners and use wormholes to travel the vast area of Cygnus. Choose from ten scenarios each with five levels in this arcade style adventure. Amiga, C64, IBM. ELECTRONIC ARTS. Circle Reader Service Number 9.



ACERS HIGH

Fly the F-19 STEALTH FIGHTER on hundreds of combat and reconnaissance missions over Europe, Libya, and the Persian Gulf. Each of these regions is 250

miles by 250 miles, and includes geopolitical, economic and military situations (targets) to encounter. The program includes lots of richly detailed 3-D graphics to fly through and supports CGA, EGA, MCGA/VGA and Hercules graphic modes. It's hard-drive installable too. IBM. MICROPROSE. Circle Reader Service Number 8.



GRUNTS-VILL

In BARBARIAN, the mighty wizard Necron has killed your father. As Hegor you're not going to take this lying down. So it's off to Necron's dungeon for revenge. This action-arcade style game features excellent color graphics with over 20 different monsters and traps, 300 animated sequences, and 48 high-resolution background scenes. The game is timed in which the amount of time you've spent reaching Necron and killing him equals the time you have to get out. Amiga, Atari ST, C64. PSYGNOSIS. Circle Reader Service Number 7.



DRUID ADDICTS

In ENLIGHTENMENT, Acamantor is back, and this time he wants revenge upon the land of Belorn. Hasrinaxx, the mighty hero who gave Acamantor the boot 10 years ago, must get his act (and a party of adventures) together and banish Acamantor from the land forever. You must travel through desert, swampland, caverns of darkness, and a land of poisonous fungi in order to enter the five levels of Acamantor's dungeon. The game features excellent graphics, 15 levels, 32 spells plus two player mode. Amiga, C64, Atari ST. RAINBIRD. Circle Reader Service Number 10.

Next Month: Deja Vu, Uninvited Heavy Metal, Fire and Forget, Sword Soldan, Space Station Oblivion, More!

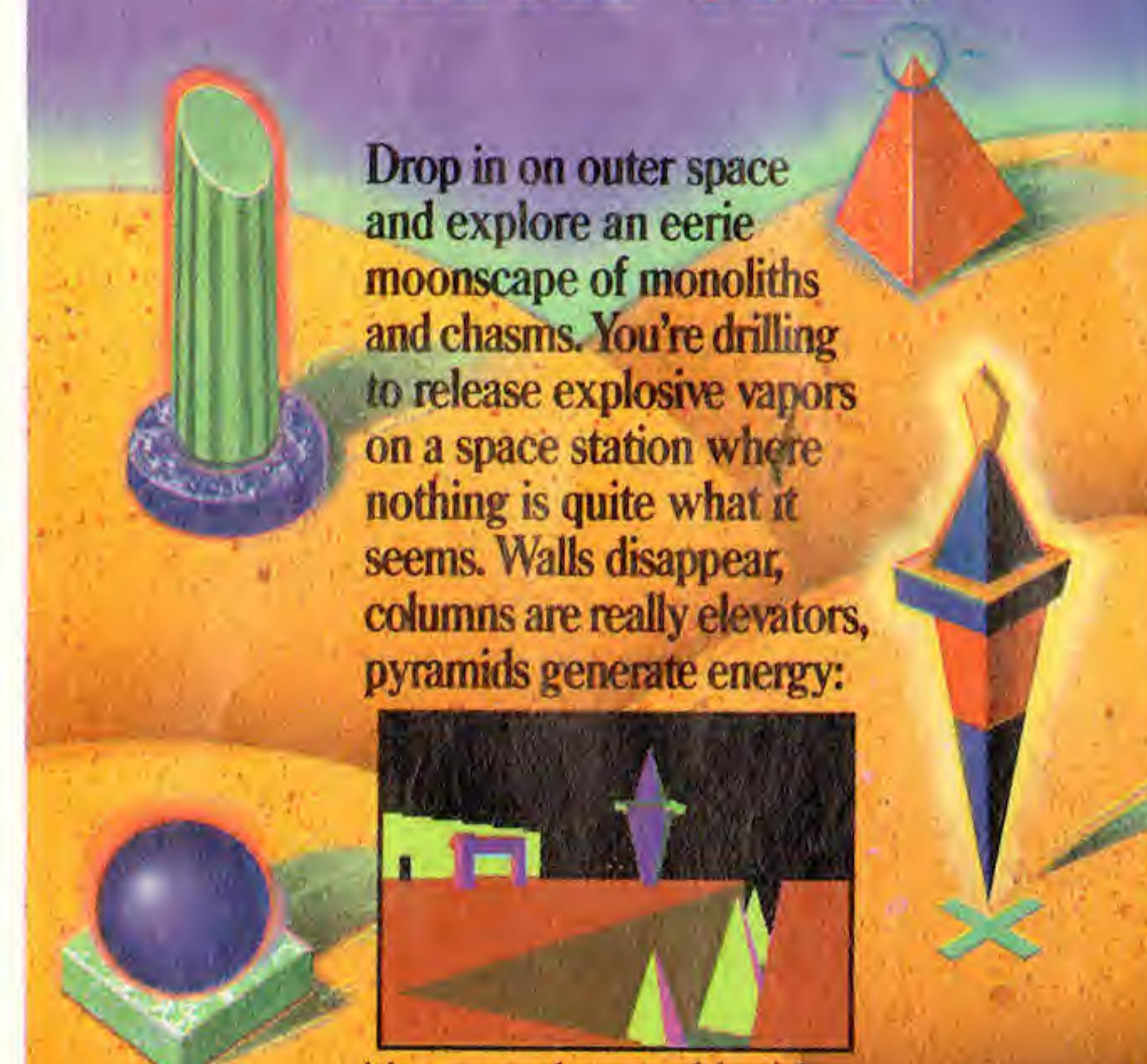
Name: Life Force
Type: Arcade action
Format: Nintendo
Publisher: Konami
Ages: 6 and up
Players: 1 or 2
Requirements: NES
Price:

Ability Level:	Intermediate
Packaging:	Good (8)
Documentation:	Good (7)
Graphics:	Very Good (8.5)
Playability:	Very Good (9)
CP Rating:	8.48

Circle Reader Service Number 66.

THE MASTERS COLLECTION

FOR THOSE WHO ALWAYS WANTED TO SEE THE WORLD... BUT DIDN'T SPECIFY WHICH ONE.



Drop in on outer space and explore an eerie moonscape of monoliths and chasms. You're drilling to release explosive vapors on a space station where nothing is quite what it seems. Walls disappear, columns are really elevators, pyramids generate energy:



it's a complex world with rules all its own... And you'll need all the ingenuity you can muster to master its secrets.

Amiga, Atari ST, Commodore 64/128, IBM & compatibles.

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EPYX

Coming Attractions

What does January have in store for COMPUTER PLAY? Wargames! We've put together a comprehensive listing with ratings of over 170 wargames as well as accompanying articles on the history of wargaming and the best hardware for wargames. JL Miller, our resident wargame expert, wrote the entire section and the results are superb, so if you have any interest in wargames, *The Wargamer's Desk Reference* is must reading for you.

We've also got a large number of very diverse games reviewed in January. Everything from Wall Street to mountain climbing to big time wrestling is covered in this issue. Final Assault by Epyx takes you mountain climbing where one mistake can get you flattened in a hurry. Takedown from Gamestar introduces you to the world of wrestling and Wall St. Raider from Intracorp lets you try to make a million in the stock market.

Our flight simulator series continues with Solo Flight from Mocroprose and several war related games are reviewed as well. You'll find Red Storm Rising from the Tom Clancy bestseller and also from Microprose, Typhoon of Steel from SSI, Global Commander from DataSoft.

Our long-awaited review of Star Saga: One from Masterplay should also be appearing in January so



Hybris from Discovery.

don't give up on it yet. There will be lots more games, of course, as well as our regular features so don't miss out! Get your copy early. And...don't forget to vote for your choices for best of '88 in this issue on page 61. See you next month.

Advertiser Index

Advertiser	Page	Reader Service#
Epyx	Inside Cover	43
Arcadia	1	29
Microprose	3	31
Rainbird	7	35
Tengen	8,9	60
DataSoft	11	40
Dolphin	13	49
Epyx	15	39
Konami	18,19	26
Baudville	22	17
FCI	23	58
Ocean Isle	25	54
Origin	27	48
PSI	30	45
Simon & Schuster	31	37
Epyx	32,33	38
Access	34	59
Sir-Tech	35	44
Activision	38	56
Titus	39	34
Ativision	41	57
Beeshu	43	46
Titus	46	52
Mandscape	47	32
Discovery	49	50
Gamestar	51	36
Lyric	53	28
Titus	55	55
Mandscape	57	25
Epyx	Back Cover	53



Starglider from Rainbird.

[LUCASFILM ON THE ART AND SCIENCE OF ENTERTAINMENT.]

COMBAT FLYING IS PURE SCIENCE. UNTIL THE ENEMY SHOWS UP.

IF YOU'VE EVER FLOWN a PC, you know how it can simulate every nuance of an airplane's performance envelope. And if you concentrate hard enough on the instruments, you'll soon learn

what the limits are. But when you're making a torpedo run at an enemy flattop, with flak blowing by your canopy and two Zeroes chewing up your tail, all that goes out the window. And you learn to fly by the seat of your pants.

That's the idea behind *Battlehawks 1942*, the new

WWII naval air combat simulator from Lucasfilm Games. Besides the intellectual challenge of mastering six classic carrier planes, you get the white-hot rush of diving into some very hairy situations.

RELIVE HISTORY. OR REWRITE IT.

Battlehawks 1942 gives you an authentic pilot's eye view — from both sides — of four battles that turned the tide in the Pacific. As an



"In early 1942, American planes were no match for my Zero. I was a hawk in a flock of geese — soaring, looping, pouncing, destroying. I was truly saddened for the brave men in those sluggish planes. All too soon, the planes got better..."



1942 feel like the real thing. To a man, they said make it intense.

So instead of polygon-block



Bombing a moving ship half a mile below, diving at 250 mph and dodging flak, can be a little tricky.

Your Wildcat's heavier armor and guns win in a shootout, but watch out if a Zero gets on your tail.



Flight characteristics and instruments are authentic. So are weapons and enemy tactics. About the only feature that isn't authentic is something combat pilots never dreamed of. An instant replay camera.

GROUND SCHOOL IT ISN'T.

We asked WWII pilots how to make *Battlehawks*

graphics, we use high-resolution, digitally-rendered images. Ships and planes look almost photographic. Bombs and torpedoes explode in infernos of flames and smoke. The feeling, as one veteran pilot put it, is like flying into a beehive.

And that's where the science leaves off, and the fun starts.

LUCASFILM™ GAMES

Battlehawks 1942 is available for IBM and close compatibles. Amiga and Atari ST versions will be available in early 1989. IBM is a trademark of International Business Machines, Inc. Atari ST is a trademark of Atari Corp. Amiga is a trademark of Commodore Electronics Ltd. All elements of the game fantasy are trademarks of Lucasfilm Ltd. TM © 1988 Lucasfilm Ltd. All rights reserved.



FOR THOSE OF YOU WITH AN OFF-TRACK MIND.

Get ready for four of the most challenging, rugged, rump-bumping cross



Plenty of thrills guaranteed on the following grounds: gumbo mud, packed snow, skid-sand, and the scrubbiest terrain south of the border.

country road racing courses this earth has to offer.

Fight the torturous terrain of Baja. Rocks, boulders, skid-sand, even a few spiky cactuses. And of course, heat that's hot enough to fillet any forehead. Ever had your hands stuck to the wheel?

Permanently. You will when you endure the longest winter of your life in the ice, sleet and slosh of The Michigan Course. The Georgia Red Clay Course has enough mud to keep you a human fossil for 2,000 years. And then there's Death Valley. Get it. D-E-A-T-H Valley.

Start with pre-race strategy.

Select and customize your personal vehicle. Your supplies. Your repair equipment. Believe us. You'll need everything.

There are boulders, rivers, potholes, and mudbogs to contend with. What are mudbogs? You'll find out. (Just after you find out there's a Demon 4 x 4 chasing you all through the race. A Demon hellbent on your destruction.)

If you win enough races, collect enough points, only then will the Victor's Cup be yours. It's the least we can do. After all, you did go through hell to get there.

4x4 OFF-ROAD RACING

BY EPYX

Commodore 64/128, IBM & compatibles, Amiga
Circle Reader Service Number 53.

